

## LATE NEWS.

## Adjourned.

The charges against Mr. Edward Boden, patent-medicine manufacturer, for splitting Government stamps in two for his bottles, was further inquired into at the Eccles Police Court on January 25, and was again adjourned.

## Following the Hunt.

At an inquest held at Newark Hospital, on the death of a farmer's son who was killed while hunting with Lord Harrington's hounds at Sibthorpe, one of the principal witnesses was Mr. John Henry Smith, chemist, Newark, who was following the hounds on the same day, and saw the accident.

## A Careful Chemist.

A man named Rose at Colchester last week shot his two children and then himself. At the inquest, on January 21, it transpired that Rose, previous to the tragedy, had called at the shop of Mr. J. F. Marlair, chemist and druggist, Colchester, for some prussic acid to poison a dog. Mr. Marlair refused to supply him, but said if he would take the dog to his shop, he (Mr. Marlair) would poison it for him.

## The Bradford Case.

An application has been granted by the Stipendiary Magistrate for Bradford (Mr. Charles Skidmore) by the defendant's solicitors in *Leggett v. Dutton* to state a case for the decision of the High Court. Messrs. Neve, Beek & Kirby are to prepare a statement of the case and submit it to the complainant's solicitors, and when the statement has been agreed upon it is to be sent to Mr. Skidmore for his endorsement.

## Deaths.

**BAMBRIDGE.**—On January 25, Mr. James Williams Bambridge, chemist, Church Street, East Dereham, Norfolk, aged sixty-two. He had been ill for about a week. Mr. Bambridge will be greatly missed, having been one of the oldest and most respected tradesmen in the town. He had never married.

**BEW.**—On January 25, Mr. John Bew, formerly representative of Messrs. Harker, Stagg & Morgan, Ltd., wholesale druggists, Laurence Pountney Lane, E.C. Mr. Bew died at Askern Spa, Doncaster.

**HUBBUCK.**—On January 22, Mr. Augustus George Hubbuck, of Rotherhurst, Rotherfield, Sussex, and Elmstead Lodge, Chislehurst (and of T. Hubbuck & Son, Ltd., 24 Lime Street, E.C.), aged forty-six.

## Irish Sauce and Seidlitz.

At the last meeting of the committee of the proposed National Exhibition in Dublin, a letter was read from the Kandee Sauce-works, Price's Lane, Dublin, stating that they intended to commence the manufacture of goods such as seidlitz powders, for which large sums were sent out of the country annually. The manager forwarded a specimen of the wrapper for the seidlitz powder, upon which it is stated that the contents of the packet are genuine, and made in Ireland. The Executive Committee of the Exhibition hoped that the new venture would be supported throughout the country, and thus encourage the Kandee Sauce-works Co. to persevere with their resolve to decrease still further the enormous quantities of goods imported into the country which are capable of being manufactured at home.

## Bankruptcies.

**Re JULIUS HAHN** (trading as Hahn, Vivers & Co.), 6 Mincing Lane, E.C., Wax-importer and General Merchant.—This case came before Mr. Registrar Hope on Thursday, at the London Bankruptcy Court, in relation to the bankrupt's application for an order of discharge. He failed last August, with ranking liabilities 777*l.* 6*s.* 4*d.* and no realisable assets. It was stated, however, that the bankrupt's father died in August 1900, intestate, at Stuttgart, and that the bankrupt had refused to give information regarding the estate, although there was reason to believe that his present creditors might benefit thereunder. His Honour adjourned the application for a month, and intimated that unless the bankrupt furnished the necessary information steps should be taken to report his conduct to the Judge.

**Re RICHARD JEFFERSON DODD**, 70 Tottenham Court Road and 146 Edgware Road, W., 35 Hampstead Road, N.W., 123 Judd Street, W.C., 121 Euston Road, N.W., and 310 Gray's Inn Road, W.C., Chemist and Druggist.—The adjourned first meeting of the creditors herein was held on Thursday, at the London Bankruptcy Court, before Mr. E. Leadam Hough, Senior Official Receiver. Having called over a large number of proofs, the Chairman reported that the meeting was adjourned on the former occasion to enable the debtor to submit an offer. In the meantime accounts had been filed showing a very considerable surplus, inasmuch as the unsecured liabilities amounted to 2,396*l.* 15*s.* 3*d.*, and the

assets were valued at 3,354*l.* after deducting preferential claims. The assets principally consisted of stock costing 2,854*l.*, and estimated to produce 1,700*l.*; fixtures costing 3,175*l.*, and now valued at 1,500*l.*; cash in hands of Sheriff, 66*l.*; a trifling amount of book-debts; and the estimated surplus of 1,071*l.* from the leases held by the fully secured creditors. He understood that Mr. Raphael, who now represented the debtor, had the outline of a scheme to put before them. Mr. Raphael (R. Raphael & Co.) said when the debtor consulted him a private meeting of the creditors was convened, and a general concurrence was expressed in the suggestion to form a company and pay the creditors in cash and shares. Creditors for 1,569*l.* had since agreed to accept a cash composition of 10*s.* in the pound, and to take the remaining 10*s.* in fully-paid shares of a company to be registered as Dodd's Drug-stores. A creditor offered to buy the estate at a sum sufficient to pay 12*s.* 6*d.* in the pound on the liabilities. Other creditors said if the debtor were unable to carry through a satisfactory proposal, much better terms than 12*s.* 6*d.* in the pound would be forthcoming. There were one or two companies interested in this matter, but before making any offer they desired to give the debtor every opportunity of putting himself right. Mr. Oscar Berry, a member of the before-mentioned committee, inquired whether the debtor could not offer the creditors a cash composition of 15*s.* in the pound. Mr. Raphael said if the meeting welcomed such an offer, he had no doubt it could be arranged, as the creditors who were proposing to provide the composition of 10*s.* would doubtless prefer to provide 15*s.* and hold the business as security. A show of hands having been taken in favour of the amended terms, the meeting was adjourned to February 24, the business in the meantime to be carried on under the supervision of the Official Receiver and Mr. Jeffreys, the special manager.

## COLLEGE NOTES.

**IMPERIAL COLLEGE OF CHEMISTRY.**—On January 24 the students of this College, with their Principal (Mr. Frederick Davis), visited the Electric-lamp Works of Messrs. Robertson, at Hammersmith. From a physico-chemical standpoint the process is most interesting. Cotton-wool is dissolved in zinc chloride, forming a solution like treacle. This is squirted through a fine nozzle into a settling solution, where it hardens and coils up like a violin-string. This is then washed and dried, wound on plumbago forms and baked for twenty-four hours in a furnace at 1,400° C., when it becomes carbonised. The film is then taken off the form, where it has assumed the desired shape. This is the rough filament; any unevenness is subsequently made good by deposits of carbon produced from benzene by electrolysis. The students were much astonished at seeing the glowing filament beneath the surface of a tank of benzene, and yet the benzene was not fired. A most interesting educational visit was terminated by viewing the glass-blowing and other mechanical details. Messrs. Robertson's factory is the largest of its kind in the world.

## WHERE TO STUDY.

THE FOLLOWING EDUCATIONAL INSTITUTIONS are advertising in this issue:

- South London School of Pharmacy, 325 Kennington Road, S.E.
- Westminster College of Pharmacy, Trinity Square, Borough, S.E.
- Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, S.E.
- London College of Chemistry, 323 Clapham Road, S.W.
- Imperial College of Pharmacy, 49 and 51 Imperial Buildings, Ludgate Circus, E.C.
- Manchester College, 225A and 227A Oxford Road, Manchester.
- Northern College of Pharmacy, 100 and 102 Burlington Street, Manchester.
- West of Scotland College of Pharmacy, 157 St. Vincent Street, Glasgow.
- Leeds College of Pharmacy, Clarendon Road, Leeds.
- Liverpool School of Pharmacy, 6 Sandon Terrace, Upper Duke Street, Liverpool.
- Edinburgh School of Pharmacy, 26 Clyde Street, Edinburgh.

**BLUNDELL, SPENCE & Co.**—In their report for 1904 the directors recommend a dividend of 10 per cent. and the transfer of 3,500*l.* to reserve account (making it 9,600*l.*). A balance of 17,967*l.* is carried forward.

"All About Borax and Boracic Acid" is the title of a useful household book which has just been published for gratis distribution by Borax Consolidated, Ltd., London, E.C. Chemists can get a copy on application.



## ASSOCIATION GATHERINGS.

### Blackpool Chemists' Association.

THE monthly meeting of the Blackpool Chemists' Association is to be held on Thursday, February 2, at 8.45 p.m., at the Palatine Hotel, Blackpool.

### Midland Pharmaceutical Association.

A SOCIAL GATHERING of the Midland Pharmaceutical Association at the Grand Hotel, Birmingham, on January 24, took the form of a whist-drive. About eighty ladies and gentlemen took part in the drive, the prize-winners being Mrs. Wynn, Mrs. Barlow, Mr. J. Hill, and Mr. Otty.

### Chemical Society.

A MEETING of this Society was held at Burlington House, Piccadilly, W., on Wednesday evening, January 25, Dr. W. A. Tilden (President) in the chair. The occasion was the delivery by Professor W. H. Perkin, F.R.S., of the Wislicenus memorial lecture. We shall deal fully with the lecture next week.

### Leeds Chemists' Association.

THE annual ball in connection with this Association took place on January 25 at Powolney's Assembly Rooms, Great George Street, Leeds. About fifty couples were present, and among the visitors were Miss Wilton (Birmingham), Mr. Swire and Miss Roberts (Halifax), and Dr. Tresh (Leeds). The President of the Association (Mr. Worfolk, of Ilkley) formed one of the company. A programme of twenty dances was accounted for before two o'clock, the music being supplied by Dysen's band. Supper was served during the interval.

### Thames Valley Chemists' Association.

THE members of this flourishing Association, guided by their popular and hard-working Hon. Secretary, Mr. Harvey, gave a Bohemian concert at the Freemasons' Club, Richmond, on January 25, which proved to be a big success in every sense of the word. Close upon a hundred persons attended—a good record, having regard to the youthfulness of the Association and the widely scattered area embraced by its membership. The attendance of ladies was especially gratifying, and a very pleasant evening was spent by one and all. Mr. C. J. Palmer, the President, opened the proceedings with a short speech, after which music and recitations were given by Miss Winifred Etherington, Miss Elsie Ashton, Mr. Weber, Miss Ethel Peake, Mr. H. Milner, Miss Gasson, Mr. Harry Cook, Miss Venables, Mr. Singleton, Mr. Shirie, Mr. and Mrs. Letsoe, Miss Higgs, and little Miss Bunker.

### Tunbridge Wells Chemists' Association.

A MEETING of this Association was held on January 24, the President (Mr. A. E. Hobbs) in the chair.

Correspondence was read from the Executive of the Federation of Local Pharmaceutical Associations as to breaking bulk, and from the Reading Chemists' Association on price-protection.

The President opened a discussion on the regulations necessary for the sale of poisons, and after discussion it was resolved to ask the Council of the Pharmaceutical Society to give such guidance in this matter as may be necessary from time to time to ensure uniformity of practice.

The President referred to the death of Mr. A. Nicholson, one of the oldest chemists in the town, and a resolution of sympathy was ordered to be entered on the minutes.

### Cardiff Pharmaceutical Association.

THIS Association held its annual meeting at the Park Hotel, Cardiff, on January 25. The newly elected President (Mr. W. R. Hopkins) opened the proceedings and reviewed the trend of pharmaceutical events. He said that briefly the present state of affairs is that there is a legal way of filching the legitimate pharmacist of all the privileges he is supposed to possess as a professional man, constituted so by Act of Parliament. Provided chemists are conscious of the justice of their cause, he firmly believed that even now it is not too late to restore their rightful position. The speaker then referred to the need of organisation, more leaders of the type of Mr. Glyn-Jones being required in the drug-trade. A final suggestion was, if it were impossible to protect the name "chemist and druggist," could they not do away altogether with the term, and register a new name such as "pharmacist," granted only on the conditions in which it was intended that the Pharmacy Act of 1868 should be used? In these days of rapid assimilation of new ideas, he believed, the public could be very soon educated to the change of name.

The President was cordially thanked for his address, and after a vote of sympathy had been passed with the retiring President, Mr. D. Anthony, in his severe illness,

Mr. A. Hagon referred to the Fairchild scholarship, which, he said, inaugurated a new era, and he hoped that other

wholesale houses would follow the example, and supply funds for the education of young men.

Mr. Alderman R. A. Robinson, President of the Pharmaceutical Society, who was present, then said a few words, in which he emphasised the advantages of union, which, he said, is necessary in the interests of all.

### THE ANNUAL DINNER

afterwards took place, under the presidency of Mr. W. R. Hopkins. After the loyal toasts, Mr. R. Drano gave "The Town and Trade of Cardiff," and Mr. J. L. Wheatley (Town Clerk) responded. The President then proposed "The Pharmaceutical Society of Great Britain," to which Mr. Alderman R. A. Robinson, President of the Society, replied. Mr. A. Hagon and Mr. Humphrey also responded. Several other toasts followed.

### London Chemists' Association.

A MEETING of the North London Branch of the London Chemists' Association was held at the Athenæum, Camden Road, N.W., on Thursday afternoon, January 26, Mr. John Holding in the chair. There were ten members present. Mr. A. C. Wootton explained the new seventh clause of the Pharmacy Bill and regretted that the London Chemists' Association was the first to advocate abandonment of the qualified directorship clause. The new rules suggested by Mr. Pond were also discussed and agreed to.

### Public Dispensers' Association.

THE annual general meeting of this Association was held at St. Bride's Institute, Ludgate Circus, E.C., the Chairman of Council (Mr. F. Noad Clark) presiding. Among others present were Messrs. R. Welford, W. E. Miller, W. Duff, G. H. C. Phillips, A. Mallord, H. H. Hewitt, C. H. Fentiman, A. C. O'Brien, T. Knowles, A. H. Russell, A. Wilson, R. E. Jones, G. W. Lindsay, R. Nicholls, and S. H. Leadbeater (Hon. Secretary).

### GENERAL BUSINESS.

Mr. Hewitt (Hon. Treasurer), in submitting the balance-sheet for the year, regretted the falling-off in the membership of the Association. The number of members last year was thirty-three, as against fifty-six in the previous year. This decrease was ascribed by some to the raising of the subscription, but he (the speaker) rather put it down to the appalling apathy of public dispensers generally. But for a substantial balance from the annual concert the net balance on the year's accounts would have been on the wrong side. However the year closed with a balance to the good of the Association of 2l. 1s. 9d.

The report of the Council was then read by Mr. Leadbeater (Hon. Secretary). It dealt with the things accomplished and tried by the Association during the past year, and both the report and financial statement were unanimously adopted.

The following members of Council were elected for the ensuing year: Chairman, Mr. R. Welford; Vice-Chairman, Mr. F. Noad Clark; Treasurer, Mr. H. H. Hewitt; Secretary, Mr. S. H. Leadbeater; Messrs. Miller, Duff, Lindsay, Phillips, Whitmore, Peck, Sproston, R. E. Jones, and Mallord.

Messrs. Noad Clark, Hewitt, and Leadbeater were heartily thanked for their services as Chairman, Treasurer, and Secretary respectively, during the past year.

### VALEDICTORY.

Mr. F. Noad Clark, the retiring Chairman, then gave a short address, in which he reviewed the work of the past session. He paid particular tribute to the devotion of the Secretary (Mr. Leadbeater), whom he described, amid general assent, as "a painstaking, courteous, and zealous officer." He referred with much satisfaction to the success attending the efforts of the L.C.C. members of the Association in obtaining the title-concession of "dispensing chemist." For that desirable result they were largely indebted to Mr. Idris (President of the Association) and to Mr. R. A. Robinson. Alluding to the chloral-poisoning cases at Portsmouth Hospital, he said they demonstrated the laxity of conditions that prevail in many public institutions in the employment of unqualified dispensers. In that connection representations had been made by the Council to the Local Government Board, the Lunacy Commissioners, the General Medical Council, the British Medical Association, the Pharmaceutical Society, and several members of Parliament, and it is hoped that these representations have borne good fruit. In July a conference was held between members of the Council and Messrs. Cross and Wootton, pharmaceutical councillors, with regard to dispensing in public institutions. As a result, the Council drew up a clause embodying their views for insertion in the proposed Pharmacy Bill. The admirable paper by the Secretary on the "Dispensing of Insoluble Preparations" elicited an instructive and interesting discussion, and he hoped more papers of the same practical character could be obtained. The concert and the "Novelties' Exhibition" were both most successful ventures. He



deplored the great lack of combination in the ranks of public dispensers, and urged more strenuous efforts to increase respect for the dispenser in public institutions and to consolidate their ranks.

#### THE NEW REGIME.

Mr. Noad Clark then vacated the chair in favour of his newly elected successor, Mr. R. Welford, who said he proposed during his year of office to try to remedy some defects in pharmacy. With regard to the new Pharmacy Bill, he pointed with gratification to the fact that a suggestion from that Association respecting the dispensing of medical prescriptions by unqualified men had been partly embodied in the Bill. The Association desired a clause to be inserted making it penal for an unqualified person to dispense poisons in public institutions, but the Council had hitherto not seen fit to adopt that suggestion, and it would be the duty of the Association during the coming year to endeavour to get the clause inserted. He (Mr. Welford) contended that only pharmaceutically qualified persons should handle compound poisons, and that a poison is a poison whether sold or not. The public institution is the working man's pharmacy, and far more poisons are dispensed in public institutions than in trade. He hoped to double the membership during the year, and appealed to all to help.

Mr. Hewitt and Mr. Leadbeater having returned thanks for their re-election, a resolution was passed "that the Council take into consideration the best means of increasing the membership of the Association."

#### REMINISCENT.

Mr. Lindsay then gave a few "Reminiscences of Apprenticeship-days by an Old Hand," being a short record of his own experience as an apprentice. He began his apprenticeship over thirty years ago in a busy seaport town in the North of England. His term was for six years, and the trade was a miscellaneous one. His master was the analyst for the town; he did a good dispensing business, and a large shipping trade. Not only medicine-chests were supplied but general ships' stores, such as oils, paints, mops, brooms, split peas, etc. All galenicals were made on the premises, plasters and blister; they even made their own emplastr. cantharidis. He was also taught how to make suppositories, pessaries, bougies, sheep-dip, and horse-balls. He passed the Minor in 1872, without help, there being no schools or training colleges for pharmacy students in those days. He was glad of his good grounding in the preparation of galenicals. The tendency of the present day appeared to be to get from wholesale houses all those galenicals which it used to be the pride of the pharmacist to make for himself. He thought the art of making galenicals was becoming obsolete among chemists and druggists—a thing to be regretted.

Mr. Russell gave an entertaining account of the first year of his apprenticeship; and the discussion thereafter, on the initiative of Mr. R. E. Jones, took up the question of the value or otherwise of ready-made galenicals. Cogent arguments were provided on both sides, and opinions appeared to be pretty evenly divided.

### THE CHEMIST'S AWAKENING.

He was a chemist—by examination. He sold photographic materials. What with prescriptions, patent medicines, pills, and printing paper, he did a roaring trade. In fact, trade roared so he got but little sleep. He slept, or at least he tried to, over the shop, on the premises. The lights behind the bottles, red, blue, green, and yellow, never failed. Through the watches of the night they glowed. Only on Sunday afternoons did the chemist put his shutters up. Then he turned his back on the suffering, bilious, dyspeptic world, and tried to make up the sleep he had lost during the week. Sometimes he was victorious, sometimes he was not, that was when he forgot to switch off the electric door-bell. The other week had been an unusually heavy one. There had been many weddings, many funerals, and a by-election. So he was very sleepy on retiring to rest and before he had finished putting up the shutters his eyes were shut; by the time he had unlaced his boots he was fast asleep.

If this was a fairy tale we should let him sleep, but as it is a true story we shall have to wake him up. In less than five minutes the door-bell began to ring; it kept on ringing till the chemist awoke; he had in his weariness forgotten the switch. Then instead of switching off the bell he went to the door—he was a merciful man—and was accosted by a youth who asked him for a fourpenny packet of photographic printing paper. I said he was a merciful man, so he only asked the youth to come back on the morrow for the paper he wanted. You and I, reader, might have been less moderate in speech. Then the chemist switched off the bell and slept the sleep of the righteous.—"The Amateur Photographer."

### TREATMENT OF PNEUMONIA.

SOME practical points which Dr. W. Ewart brings out in a paper to the "Lancet" on "The Principles of Treatment of Pneumonia" may be usefully referred to here. The first-aid treatment for the shock of the invasion is immediate recumbency, warmth, and a small dose of ether or brandy, with hot water and some soothing draught, such as ammon. brom. with sp. ammon. arom. and liq. morph. mv-x in aq. chloroformi. A dose of calomel is also to be given at once, followed in half an hour by a senna draught. As regards oxygen, its continuous administration is a valuable help to the heart. It has over the continuous use of alcohol the advantage of being harmless and of not complicating the alimentary situation. The funnel method of giving oxygen should not be used; the mask is better for preventing diffusion of the oxygen, but the patient finds the mask intolerable. The best means is to place the end of the tube between the lips or immediately in front of the mouth, or preferably to use Mr. Stokes's plan of a soft indiarubber nostril-piece, which is self-retaining and convenient. Leeching is a routine of treatment of pneumonia, its value being in proportion to the early date of its employment before the deposition of fibrin. Sweating is best managed internally by freely administering ammon. cit.; sp. æther. nitr. may be added to the mixture and sweating further encouraged by warm beverages and one or two doses of gin. The agents just referred to also promote diuresis, and as regards other drugs Dr. Ewart is inclined to give further trial of divided doses of calomel for the sake of that drug's beneficial effect upon absorption. To restore the heart's strength nothing is equal to sound sleep. One of the best checks to coagulation is offered by citric acid as a precipitate of calcium, which is essential to clotting; but carbonates, which also tend to keep the blood fluid, are to be avoided in pneumonia because of the injurious gastric inflations. Potassium iodide is another agent useful for keeping the blood fluid, and is of great value as a solvent and absorbent of fibrinous deposits. It is well to continue the administration of potassium iodide throughout the illness. A typical prescription is the following:

Pot. iod.	...	...	...	gr. v.
Liq. ammon. cit.	...	...	...	ʒil.
Spt. æth. nit.	...	...	...	ʒss.
Sp. amm. arom.	...	...	...	ʒxxx.
Aq. chlorof. ad	...	...	...	ʒss.

Ft. mist.

One tablespoonful diluted to be taken every hour for six doses, and subsequently every three hours.

Hyd. subchlor. ... gr. ʒ

Ft. pil. parvula.

One pill to be taken every four hours.

The small amount of free iodine liberated by the sp. æther. nitr. is an advantage. As regards diet, it should be watery. Whey is preferable to milk, and may after a day or so be fortified by adding white of egg, while alcohol and sugar will be useful additions. Further support will soon be needed, raw meat juice, strong gravy, maltine, or predigested foods and eggs beaten up being substituted for the whey and milk given in tea or thickened with cocoa. Oxygen must be continued and strychnine administered in anxious cases. The kind of alcohol should be varied, and lemons remembered as being quite in line with the treatment.

DURING 1903 Cuba imported 1,455,283 gals. of olive oil, compared with 1,467,626 gals. in 1902. It almost all came from Spain.

IT IS SAID that "Punch" has only once published a joke twice, which was nearly twenty years ago, and the editor still gets complaints about it. If the following has ever been in the *C. & D.* before, we shall bow to the same fate: A Scotchman came to London for a holiday. Walking along one of the streets he noticed a bald-headed chemist standing at his shop-door, and inquired if he had any hair-restorer. "Yes, sir," said the chemist; "step inside, please. There's an article I can recommend. Testimonials from great men who have used it. It makes the hair grow in twenty-four hours." "Aweel," said the Scot, "ye can gie the tap o' yer heed a rub wi' it, and I'll look back the morn and see if ye're no' leein'." The chemist returned the bottle to the shelf with disgust, and kicked the errand-boy for laughing.



## THURSDAY'S MARKETS.

January 26.

ARECA.—The only first hand holder is now asking 16s. per cwt.

CLOVES.—Business has been done on the spot to-day at 4½d. per lb.

COCAINE.—Hydrochloride is firm and in steady request. Crude is quoted 350m. per kilo.

CORIANDER-SEED.—Mogador is 1s. per cwt. dearer, at 36s.; Russian is quoted 30s. and Bombay 20s., new crop of latter offering at 14s., c.i.f., for March-April shipment.

CREAM OF TARTAR is steady at 79s. per cwt. for 95-per-cent. powder and 82s. for 98-per-cent.

GALLS.—Blue Persian continue to advance, 85s. per cwt., spot, having been paid.

IPECACUANHA.—The stocks of ipecacuanha in the London warehouses amount to 340 packages of Rio and Minas and 23 of Cartagena. At the corresponding date of last year the stock was 604 packages of Rio and Minas and 125 of Cartagena. It is curious, however, that in spite of these greatly reduced stocks, Rio ipecac. is no dearer now than it was in January 1904, when it stood at about 5s. to 4s. 6d. per lb., which was the average price of the first three months of the year. It was thought that the Russo-Japanese war would have influenced prices in an upward direction, but such has not been the case. Rather is it that East Indian ipecac. now absorbs a fair share of the demand. There is said to be more inquiry to-day, and, as usual between the auctions, holders are inclined to ask a slight premium on the auction prices, 5s. 2d. to 5s. 3d. being quoted for Rio, and 5s. for Cartagena.

MANDRAKE.—Advices from New York state that the market is weaker, with quotations showing a decline to 5c. to 6c. per lb. as to quality and quantity.

MORPHINE is firm, in sympathy with the higher prices of opium.

MYRRH.—An arrival of 20 bags has taken place per s.s. *Ismalia* from Aden. Fair sorts have sold in a small way at 95s. per cwt., and London picked is held for 8l.

OIL, ANISEED, STAR, in lots of 5 cases and upwards, is quoted 5s. per lb., spot.

OIL, CAMPHOR.—White essential is quoted 43s. per cwt., at which figure small sales are reported.

OIL, CASTOR, is dearer, as noted in our Trade Report. French is now quoted on the spot at 30s. per cwt. in cases, and 28s. in barrels.

OIL, PEPPERMINT.—Practically no business has been done this week, and prices are nominal for the moment.

OIL, SPIKE.—Genuine continues very scarce and dear, holders in France asking 5s. per lb. Business has lately been done at 4s. 8d., but 5s. to 5s. 6d. is a more general quotation. Very little is to be had, however, on the spot.

OPIMUM.—The London market is much firmer in sympathy with Smyrna, and a very fair business has been done, including Smyrna at from 7s. 9d. to 8s. per lb., and Tokats at from 8s. 9d. to 9s. Persian continues very scarce at 14s. 6d. per lb. nominally.

QUININE.—For B.P. quality of sulphate of outside make 10½d. per oz. is quoted.

SAFFRON.—During the week prices in Spain have advanced by 5 pesetas. Best F.P. Valencia is quoted 25s. per lb. and B.P. at 24s. 6d. There is difficulty in fulfilling orders in Spain, and holders, especially of the lower grades, are not anxious to sell.

SCAMMONIUM.—Retail sales of firsts have been made at 30s. per lb.

TRAGACANTH.—A large business has been done this week in the new arrivals at full prices. All grades of Persian have been in demand, but the run has been chiefly on pinky descriptions at from 5l. to 8l. per cwt.

## Liverpool Drug-market.

Liverpool, January 25.

ARSENIC.—The price is now firm at 12l. 10s. per ton.

BEESWAX.—Two bags pale Chilian have been sold at 8l., 2 bags 7l. 10s., and 10 sacks at 7l. 7s. 6d. per cwt.

CARNAUBA WAX.—Sixty bags of grey have been sold at 130s., and 116 bags of yellow at 135s. per cwt. There is a further arrival of 211 bags.

CASTOR OIL.—Owing to the advance in seed, the price of English has considerably advanced. More inquiry is experienced for first-pressure French, with sales at 2½d. per lb. For shipment, it is still to be had at 22l. per ton, f.o.b. Marseilles. Good seconds Calcutta is also in demand, with fair sales at 2½d., and for shipment 2½d. per lb. is now wanted.

CASTOR-SEED.—Advanced prices have been paid both for Brazilian and Bombay seed.

CHILLIES.—Thirty-three bags Sierra Leone have been sold at 40s., and 2 bags at 42s. 6d. per cwt.

ERGOT is offered from Hamburg at 1s. 5d. per lb. for Russian.

GLUCOSE.—Liquid remains steady at 11s. 6d. per cwt. for Buffalo H. brand.

HONEY.—Four cases have been sold at 42s. 6d. per cwt. for Californian and 21 barrels Pile 1 Chilian at 24s. per cwt.

KOLA.—Fourteen bags have changed hands at 2½d. per lb.

## American Drug-market.

New York, January 17.

Business in general is good, and shows a slight but steady improvement. The drug-market has a firm tone, and a good year's business is anticipated.

BALSAMS.—Copaiba is jobbing steadily at 30c. to 32c. for prime Central American. Tolu is neglected at 23c., and Peru quiet at \$1.05 to \$1.10 per lb.

BARKS.—Cascara is quiet, and excites little interest. The general figure for 1904 bark is 7c. Sassafras is scarce, and firmly held at 14c. to 16c. for prime goods. Wild cherry is in good demand, and values are well maintained at 6½c. to 9c., according to quality.

BEESWAX.—Crude yellow is a little easier, and offered at 29½c.; up to 32c. is asked for prime domestic.

CAMPOR is firmly held at 78c., and further advances are not improbable in view of the various rumours afloat regarding the action of the Japanese Government. Speculative interests may affect the market at any moment.

CITRONELLA OIL is easier in view of arrivals, and 31c. will now buy bulk oil.

COD-LIVER OIL.—Prime Norwegian has sold at \$44, and more is to be had at this figure. The tone of the market is weak and towards a lower basis.

CUBEBS are in fair inquiry, with 7½c. to 9c. asked.

GOLDEN SEAL (HYDRASTIS) is firm at \$1.55 to \$1.60 per lb.

IPECACUANHA.—Both Rio and Cartagena are offering at \$1.20, but the market is a little firmer.

JAPAN WAX is weak and nominal at 11½c. to 12½c.

LYCOPodium has further advanced to 90c.

MENTHOL is coming in freely, and stocks are now very large. Quotations of \$2.40 are openly made, but buyers are already well supplied, and not inclined to take more.

OIL, PEPPERMINT, is dull and weaker. On the spot \$3.35 will buy, though Western dealers refuse to quote below \$3.40. Some small lots have been sold at \$3.25. H.G.H. is offered at \$3.50.

OPIMUM is in fair demand and steady at \$2.72½ to \$2.75 per lb.

QUININE is unchanged, and demand is still active.

SARSAPARILLA.—Mexican is offering at 8½c., but demand is light.

SENEGA is easier, and can be obtained at 62c. on the spot.

## Java Quinine-auction.

At the auction of Java quinine held at Batavia on January 25, 9,494 kilos. of Ed. II. was offered, of which 95 kilos. was sold at an average price of 16½f. per kilo. (about equal to 6c. Amsterdam unit), against 16½f. per kilo. paid at the previous auction.

## Quicksilver Exports.

According to the latest available statistics, the exports of quicksilver from the United States are increasing, as will be seen from the figures given below, which represent the exports during the ten months ending October:

	1902.	1903.	1904.
Lbs. ...	812,387	1,172,825	1,403,583

Italy, during the same period, exported 196,200 kilos. in 1902, 196,900 kilos. in 1903, and 236,500 kilos. in 1904; while Spain shipped, also for the same period, 1,164,220 kilos. in 1902, 959,611 kilos. in 1903, and 1,196,659 kilos. in 1904.

GUM ARABIC weighing 423 cwt. was shipped from Zaila (Somaliland) during 1902-3, compared with 437 cwt. during 1901-2.

THE EXPORTS of civet from Zaila (Somaliland) during 1903-4 amounted to 111 lbs. (Rs. 11,225), against 352 lbs. (Rs. 35,275) in 1902-3. It was all shipped to Aden.

THE EXPORT of sponges from Cuba during 1903 amounted to 851,028 lbs., against 831,040 lbs. in 1902 and 931,717 lbs. in 1901. France and the United States were the principal buyers.

PERFUMERY to the value of 55,591l. was imported into Cuba during 1903, compared with 42,767l. in 1902 and 40,009l. in 1901. In 1903 four-fifths came from France, and a little from Germany and the United States.

THE EXPORTS of "gums and resins" from Berbera during 1903-4 amounted to 1,310 cwt. (Rs. 27,052), against 2,176 cwt. (Rs. 46,756) during 1902-3. From Bulhar 536 cwt. were exported, against 1,552 cwt.





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### Summary.

The subjoined paragraphs give the gist of the more important matters in this issue, with the object of showing at a glance what has happened during the week. See also "Contents" in the first column.

*This summary is confined this week to the news chiefly. Particulars of the more important special articles will be found in the Editorial Note beginning on p. 124.*

POLISH DISTILLERS are beginning to make ether (p. 112).

THE ANNUAL REPORT of the Berlin Spirit Centrale is epitomised on p. 112.

THE LATEST DECISIONS by the Australian Federal Customs are mentioned on p. 112.

THE WORCESTER INFIRMARY MANAGEMENT has decided to employ a lady dispenser (p. 108).

FURTHER NOTES about the Cape Industrial Exhibition are communicated by our correspondent (p. 113).

MR. PILKINGTON SARGEANT wants commercial methods incorporated in the Minor examination (p. 132).

THE TRADE OF INDIA during 1903-4 showed improvement. We give the gist of the official report on p. 179.

THOSE who do business with South Africa are requested to note how letters should be addressed. (See p. 112.)

Is the apron still worn by chemists? "Xrayser" says he wore one in the first few years of his servitude (p. 123).

MRS. WEIGHTMAN-WALKER's doings continue to excite attention in American chemical circles. The latest is noted on p. 114.

THE INSTITUTE OF CHEMISTRY Examination-results are published this week, and include the name of one pharmacist—Miss Hooper, B.Sc. (p. 108).

THE alleged mutilation of medicine-stamp case has been further heard by the Eccles Magistrate, and the defendant has again been remanded (p. 172).

THE U.S. DEPARTMENT OF AGRICULTURE has investigated the production and cultivation of golden seal, and we epitomise the results in an article on p. 178.

SOME USEFUL VETERINARY INFORMATION is given in the report of the Veterinary Surgeon for the Cape Colony regarding animal diseases in South Africa (p. 126).

ANALYTICAL STUDENTS AND TEACHERS should read carefully Dr. Dobbin's remarks about the treatment of "salts" containing a phosphate. He puts his finger on a neglected point (p. 106).

SIR JAMES DEWAR's latest observations on the use of chilled cocoa-nut charcoal as a gas-absorbent were the subject of a lecture at the Royal Institution last week, which is reported on p. 116.

THE DISPENSING SYSTEM adopted by the West Derby Guardians (Liverpool) requires the doctors to give medicine to the patients. At this rate the parish gets its paupers treated at fourpence a head (p. 108).

THE POSITION the drug-trade has to face under the Sale of Food and Drugs Acts is discussed by "Xrayser" (p. 123), and Mr. D. B. Dott supports the suggestion that a Board of Reference should be instituted (p. 180).

THIS month's Students' Corner salt was a mixture of iron alum, magnesium carbonate, and microcosmic salt. Mr. J. S. White (Spalding) takes the first prize, and Mr. Sydney Smith (Clapham) the second (p. 106).

SOME FURTHER PARTICULARS about the liquidation of the Scottish Drug Depot, Ltd., will be found on p. 110. There is 925*l.* to divide among the creditors for 4,708*l.*, but the liquidators and lawyers have to be paid first (p. 110).

FLUCTUATIONS in the drug and chemical markets include an advance in castor oil, golden seal, and ammonia sulphate. Opium, lycopodium, chamomiles, and insect-flowers are tending firmer. Menthol and quinine are easier (p. 184).

OUR CORRESPONDENCE TOPICS are the B.P. as a standard (D. B. Dott), Pharmacy of the Charter (W. H. Keen), Bombay Mace (W. Kirkby), The Bradford Case (T. Stevenson), Shop-hours Act (J. A. Stacey and Lord Avebury), Lady Assistants, Liq. Plumbi Subacet. (T. S. Barrie), and Bismuth Salicylate (G. Roe). The letters begin on p. 180.

*This section of THE CHEMIST AND DRUGGIST Winter Issue was closed for press on Wednesday evening, and all reports received up till then are dealt with in the following pages. For later news see the Coloured Supplement.*



## Corner for Students.

CONDUCTED BY LEONARD DOBBIN, Ph.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

### REPORTS.

THE powder distributed to students on January 4 contained one part of ammonium ferric sulphate (iron alum), one part of magnesium hydroxycarbonate, and three parts of sodium ammonium hydrogen phosphate (micro-cosmic salt).

The calculated composition of such a mixture is—

Fe	...	...	...	...	2.3
Mg	...	...	...	...	5.1
Na	...	...	...	...	6.6
NH <sub>4</sub>	...	...	...	...	5.9
H	...	...	...	...	.3
SO <sub>4</sub>	...	...	...	...	8.0
CO <sub>3</sub>	...	...	...	...	9.4
PO <sub>4</sub>	...	...	...	...	27.2
OH	...	...	...	...	1.8
H <sub>2</sub> O	...	...	...	...	33.4
					100.0

The powder contained a faint trace of chloride as impurity.

Samples of the powder were distributed to thirty-seven students, and twenty-three reports were sent in for examination. The failures in the detection of the various constituents of the powder were: (a) Metallic radicals—Iron, 3; magnesium, 12; sodium, 3; ammonium, 2. (b) Acid radicals—Sulphuric, 5; carbonic, 8; phosphoric, 1. Four students failed to observe the evolution of water when the powder was heated in a dry test-tube.

If treated with strict attention to the numerous precautions necessary for obtaining reliable results in the analysis of mixtures containing or yielding insoluble phosphates, this month's exercise was really a simple one; but it was absolutely essential that one or other of the two recognised "phosphate" separations should be carefully applied in order that complete success might be assured. In devising the exercise care was taken that the quantity of phosphoric radical contained in the powder should be more than sufficient to precipitate together, as phosphates, the whole of the iron and magnesium, at the stage when ammonium chloride and excess of ammonia were added, in regular course, to precipitate the hydroxides of the iron group, along with, possibly, the phosphates, etc., of the iron, barium, and magnesium groups. This made it imperative that a "phosphate" separation should be carried out, in order to establish with certainty the presence or absence of aluminium, of barium-group metals, and of magnesium. If our correspondents had added magnesium sulphate to a small portion of the filtrate obtained on removing the precipitate formed at this stage they could have observed the formation of the characteristic crystalline precipitate of ammonium-magnesium phosphate, and might have concluded that as this filtrate still contained the phosphoric radical it could not contain barium-group metals or magnesium, and need only be examined for metals of the alkali group: very few, however, applied this test.

Although only one correspondent failed to detect the phosphoric radical, and although a special separation was attempted in nearly every case, the failure of more than one-half of those who sent in reports to detect the presence

of magnesium (constituting over 5 per cent. of the powder) shows clearly that in many cases the separation was not effectively accomplished. Indeed, the separation is by no means so easy to carry out effectively as the short instructions in the majority of analytical text-books might lead the student to suppose. A little more than a year ago we began to deal, in this column, with the complications involved and the special methods employed in the analysis of insoluble phosphates (*vide C. & D.*, October 31 and November 28, 1903, pp. 716 and 909; January 30, 1904, pp. 143-144). In the last of the three places just referred to we dealt elaborately with the "acetate method" and with the precautions necessary in order to apply it successfully, and we commend the remarks there made to our correspondents this month, but most particularly to those who failed to detect magnesium.

The present exercise was one to which the "tin method" of phosphate separation, referred to in this column, October 31, 1903, was quite appropriate, and in continuation of what was then said we may describe this method here. The method is applicable to phosphate mixtures which do not originally contain metals of the silver, copper, or arsenium groups, or to those from which these metals have been removed, and it is founded on the fact that when solutions of phosphates in concentrated nitric acid are boiled (in the absence of chlorides) with excess of metallic tin until the latter is entirely oxidised, the phosphoric radical is completely converted into an insoluble compound (probably a phospho-stannic acid) which is mixed with excess of meta-stannic acid. The mixture which results from this operation is diluted with water, allowed to settle for some time, and filtered. The filtrate is phosphate-free and contains the metallic radicals of the iron and subsequent groups, as nitrates, together, probably, with some lead and other impurities derived from the tin. After freeing the filtrate from these impurities by passing hydrogen sulphide and filtering again, the liquid obtained is ready for examination for metals of the iron and subsequent groups.

There is no royal road, which is at once short, simple, and certain, to the analysis of all insoluble phosphates, and he who will succeed must be content to carry out some operations which demand a good deal both of time and of care.

On a previous occasion we referred to the practice—almost always quite useless, and always liable to lead directly to error at the hands of beginners—of adding sodium or ammonium phosphate to a solution just shortly before proceeding to remove the phosphoric radical from the same solution by the "acetate method." The practice is a very common and at the same time a most undesirable one. Whoever is responsible for its introduction, as a general method to be employed in all cases, and not exclusively in the few special cases where it might possibly be of some slight service, has to answer for an analytical sin of the first magnitude.

### PRIZES.

The First Prize for the best analysis has been awarded to J. STANLEY WHITE, c/o Mr. E. Wightman Bell, F.C.S., High Bridge, Spalding.

The Second Prize has been awarded to SYDNEY SMITH, 43 Fentiman Road, Clapham Road, S.W.

*First Prize.*—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

*Second Prize.*—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.



## MARKS AWARDED FOR ANALYSES.

## 1. Correspondents who are unqualified:

J. Stanley White (1st prize)	90	Victor L. Blay	...	77
Sydney Smith (2nd prize)	89	E. T. A.	...	70
Cuniculus	84	R. N. V. D.	...	68
W. P. P.	84	G. S. Ph.	...	67
Ambitious	83	R. W. B.	...	64
Xenon	83	A. Gray	...	56
Paraldehyde	79	Keiro	...	51
X.	79	Squill	...	49
G. K. F.	78	M. B. Jack	...	44
		J. W. B.	...	28

## 2. Correspondents who are qualified, or who have not indicated that they are unqualified:

Danwer	...	Onyx	...	66
Norvie (non-competing)	97	Torbay	...	36

## TO CORRESPONDENTS.

**J. STANLEY WHITE.**—You did not prove the absence of aluminium. Had aluminium been present it would have been precipitated as phosphate, along with the ferric phosphate, in the course of the sodium-acetate and ferric-chloride process for the separation of the phosphoric radical.

**SYDNEY SMITH.**—The gelatinous precipitate which led you to conclude that the powder contained aluminium was probably due to silicate or aluminate present as impurity in the potassium hydroxide you employed in carrying out the fusion of the iron-group precipitate. The powder did not contain appreciable traces of potassium.

**CUNICULUS.**—The fact that a powder does not leave a white residue when heated on charcoal does not prove that it may not contain aluminium: the colour of a coloured substance may easily mask the presence of a colourless one. We do not know the origin of your note that "iron in presence of ammonia and ammonium chloride is not precipitated if a phosphate be present," but the note is quite contrary to fact, as you can easily ascertain for yourself. You seem to have attempted to test for magnesium by adding sodium phosphate to a solution which contained free acetic acid, overlooking the fact that ammonium-magnesium phosphate is readily soluble in acetic acid.

**W. P. P.**—The powder did not contain zinc, and we cannot offer any explanation for the reactions you describe, which led you to the opposite conclusion.

**AMBITIOUS.**—Solution of potassium ferri-cyanide should be freshly prepared as required: a fresh solution would not have given any green coloration with an acid solution of the powder, but only a dark-brown coloration, which would not have led you to suspect the presence of ferrous iron. See also the first sentence of the reply to Sydney Smith.

**XENON.**—The precipitate formed when dilute solution of ferric acetate is boiled, consists of basic ferric acetate, not of ferric hydroxide. Seeing that the original hydrochloric-acid solution of the powder contained iron in the ferric condition, it was superfluous to test a similar solution, later, for ferrocyanide and ferri-cyanide by adding ferric chloride. Read also the reply to J. S. White and the first part of the reply to "Ambitious."

**X.**—You seem to have tested for potassium and sodium in the original ammonium chloride and ammonia precipitate, overlooking the fact that these metals ought not to be present in that precipitate except as mere traces. The powder did not contain potassium, and any reactions which appeared to indicate the contrary have been fallacious.

**VICTOR L. BLAY.**—You omitted to test the original phosphate precipitate for barium-group metals and magnesium. It was not analytically sound to test for ferrous salt in a solution which had been boiled with nitric acid.

**E. T. A.**—You do not appear to have made any attempt to ascertain the composition of the reddish-brown residue, insoluble in dilute hydrochloric acid, which was left on evaporating to dryness the original solution (after passing hydrogen sulphide) and strongly heating.

**R. N. V. D.**—The formation of a white precipitate on the addition of sodium hydroxide to a hydrochloric-acid solution of the powder did not prove the presence of magnesium. You include aluminium in your list of substances found, although in the body of your report you conclude that this metal is absent.

**R. W. B.**—Your failure to detect magnesium was due to your not properly carrying out the "acetate method" for the removal of the phosphoric radical. The precipitate which you took to be calcium oxalate was really calcium sulphate.

**M. B. JACK.**—At least one page seems to be missing from your report. We have assigned such value as we can to the work you have done, in so far as that is before us, but it does not necessarily follow that you have received, as many marks as your work merits.

**J. W. B.**—Although we have (almost of necessity) assumed that your report refers to the powder we sent out, it is difficult to believe that we are justified in so doing, and that the lead and the chromic and hydrochloric radicals which you report to be present were not in reality derived from some altogether different source.

**DANWER.**—It does not appear that you made any test for the presence of magnesium.

**NORVIC.**—A ferric salt cannot reduce sulphuric acid. The white substance which you obtained on heating the powder with sulphuric acid, and which did not dissolve on diluting with water, was anhydrous ferric sulphate. This substance is occasionally met with in analytical work, as, for example, when ferrocyanides are heated to dryness with sulphuric acid in order to destroy the ferrocyanogen radical. It is only very slightly dissolved by water and dilute acids, and often proves puzzling when met with for the first time. It can be dealt with readily by digesting it with saturated ammonia solution and then treating the ferric hydroxide which is formed with a hot dilute acid. A report from careful hands of the presence of calcium, caused us to make a special search for traces, not only in the powder; but also in the separate materials from which the mixture was prepared, but no traces were detected. Were you particular to employ distilled water and "ashless" filter papers throughout your analysis?

**ONYX.**—You ought to have made a preliminary examination before proceeding to the systematic analysis. The latter, too, ought to have been carried out with the modifications necessary when insoluble phosphates are known to be present.

**TORBAY.**—It is plainly unnecessary to add hydrochloric acid, as a test for silver, mercurous, and lead salts, to a solution obtained by dissolving a substance in hydrochloric acid. You must not be discouraged by the result of your first attempt. Pick up all the useful hints you can from the general remarks and the replies to correspondents in the present and in succeeding columns of the "Corner," and if you have time and opportunity to refer to back numbers, so much the better.

## English News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

## Analysts' Reports.

In Southwark four samples of drugs were analysed during the quarter. All were genuine.

Six samples of drugs were taken for analysis at Hastings last year. Those found adulterated were two of cream of tartar.

The Brighton borough analyst reports having analysed a sample of infants' food, stated to be non-farinaceous, which was found to contain 8 per cent. of starch.

The public analyst of Lewisham in his quarterly report states that during the three months he examined one sample each of quinine-wine, orange-wine, peppermint lozenges, and compound tincture of bark, and that all were genuine.

The only sample of drugs taken for analysis at Dewsbury last quarter, tincture of iron, was certified to be a solution of ferric chloride. The Corporation warned the vendor.

The Wandsworth public analyst reports that during the past quarter he has examined, under the provisions of the Sale of Food and Drugs Act, one sample each of compound liquorice powder, Epsom salts, and aniseed balls: all were genuine.

In his quarterly report the public analyst of Hackney states that he examined three samples each of sweet spirit of nitre and camphorated oil, and six samples each of cinnamon, olive oil, and arrowroot. One sample of sweet spirit of nitre was 61 per cent. deficient in ethyl nitrite. No proceedings were taken, in consequence of the reserve sample being defective.

The Bradford City analyst (Mr. F. W. Richardson), in the course of his report, states that during the three months ended December 31 last he had analysed five vinegars which showed about one-ninth per cent. of free sulphuric acid, and three samples which contained amounts of sulphuric acid varying from one-sixteenth to one-twelfth per cent. Of nineteen samples of drugs, only two were reported as being other than quite genuine. A glycerin showed  $\frac{1}{70}$  grain of arsenic per lb., and a tartaric acid gave  $\frac{1}{3}$  grain of lead per lb.



## Brevities.

Business in the West of England is brightening up, so a Plymouth correspondent writes to us.

The Guildford Town Council has reappointed Mr. J. Angell as borough analyst for three years, at a salary of 26*l.* 5*s.* per annum, with a fee of 2*s.* 6*d.* for each sample analysed.

A new industry is to be started at Lawford, Essex, by the Non-inflammable Benzine Syndicate, Ltd. Employment will be given at the company's factory for 300 men and 150 women.

"I am prepared to sell this business as a going concern, and I will teach the trade to a suitable applicant. Qualification unnecessary." A Manchester Minor man has put this notice in his window.

At Harleston, Norfolk, on January 20, William Ayres was remanded on a charge of embezzling a cheque for 5*l.* 16*s.*, the property of Algernon Lawes, Ltd., horse and cattle medicine manufacturers, London.

The Society of Chemist-Opticians has arranged for a lantern-lecture at the Pharmaceutical Society's house, 17 Bloomsbury Square, W.C., on February 22, by Dr. J. McC. Ettles, M.D., on "How we See."

The Local Government Board is impressing upon Swansea the need of providing permanent hospital accommodation for the isolation of cases of infectious disease. The subject is under the consideration of the Corporation.

The trade may breathe freely again, if they ever had any trouble about the proposal to impose disciplinary powers upon registered chemists. The Law and Parliamentary Committee of the Pharmaceutical Council sees no hope of getting anything of the kind.

Rivers of burning tar and oil flowed down River Street, Bolton, on January 24, as the result of an explosion and fire that practically destroyed the chemical-works of Messrs. J. Hutchinson & Co. Not even the books of the firm were saved, and the loss is estimated at about 3,000*l.*

At Liverpool on January 18, Patrick McCluskey, manufacturing chemist, of 71 Shaw's Alley, Dale Street, was fined 40*s.* for refusing to sell a bottle of green-ginger wine to a food and drugs inspector. Defendant justified his action on the ground that he was a manufacturer and only sold in wholesale quantities.

A sum of 10*l.* paid by the Market Harborough Board of Guardians to the medical officer in respect of drugs and medicines supplied by him to the infirmary having been surcharged by the auditor, the Local Government Board has allowed the payment, but has intimated that drugs, etc., must in future be provided by the Guardians.

The management of the West Kent General Hospital, Maidstone, have effected a substantial decrease in the cost of drugs used at that institution. Last year the cost was 237*l.*, as compared with 323*l.* twenty years ago. The Governors at their annual meeting on Friday congratulated Mr. Ingram, the dispenser, on the economy he had effected.

The forty-fifth annual meeting of the Association of Chambers of Commerce of the United Kingdom will be held at the Whitehall Rooms, Hôtel Métropole, on February 28 and March 1 and 2. Sir William Holland, M.P., will preside. There are fifty-seven resolutions set for discussion, but similar resolutions have in many cases been passed at previous meetings.

## Tuesday or Wednesday?

At a conference of representatives of the retail trades of Bradford, which was held at the Royal Hotel on January 23, for the consideration of measures to be recommended for the application of the Shop-hours Act, the Bradford Chemists' Association was represented by Mr. Marshall. In the course of the reports of delegates Mr. Marshall said that, by a practically unanimous decision, his Association has decided in favour of closing at one o'clock on Tuesday, at seven o'clock on Monday, Wednesday, and Thursday, at eight o'clock on Friday, and ten o'clock on Saturday. He did not favour a suggestion that Wednesday would be a more suitable day for the half-holiday than Tuesday, but promised to put the question before his Association if the Conference favoured Wednesday. A show of hands yielded a large majority in favour of Wednesday. The Conference was adjourned for a week.

## Institute of Chemistry.

At the January examinations there were eighteen candidates for the Intermediate, and the following thirteen passed: S. J. M. Auld, Ph.D. (Würzburg), S. L. Archbutt, A. W. Bain, B.A., B.Sc. (Lond.), J. T. Cart, B.Sc. (Lond.), T. F. Cowie, D. Gair, B.Sc. (Lond.), C. T. Gimingham, H. G. Harrison, B.A. (Cantab.), Elsie S. Hooper, B.Sc. (Lond.), S. G. Liversedge, W. H. Simmonds, B.Sc. (Lond.), A. S. Stockwin, B.Sc. (Lond.), and E. J. Wilson, B.A. (Cantab.). In the final examination for the Associateship (A.I.C.) in mineral chemistry, five out of six passed—viz., H. Calam, B.Sc. (Vict.), J. D. Fraser, R. F. Korte, Ph.D. (Heidelberg), W. D. Rogers, Assoc.R.C.Sc. (Lond.), and P. E. Spielmann, Assoc. R.C.Sc. (Lond.); of three candidates in organic chemistry, one passed—viz., H. E. Laws, B.Sc. (Lond.); and of nine who entered in the branch of the analysis of food and drugs, and of water, including an examination in therapeutics, pharmacology, and microscopy, the following six passed: G. S. A. Caines, S. W. Collins, R. M. Filmer, H. E. Gresham, B.Sc. (Lond.), V. H. Kirkham, B.Sc. (Lond.), and J. Miller. One candidate passed a general practical examination for the Fellowship (F.I.C.)—viz., W. H. Merrett, A.R.S.M.

## Birmingham Notes.

Mr. H. Burton has purchased the Bearwood Pharmacy, situated near the Lightwoods Parks.

Professor W. E. Ayrton, F.R.S., lectured on "Energy" in this city last week. His subject was not physics, but physical—viz., a comparison of American, Briton, and Jap.

The new Registrar of the County Court in place of the late Mr. Glaisier, Mr. A. L. Lowe, M.A., keeps up the connection with the drug trade, as he is related to Mr. Lowe, the managing director of Messrs. P. Harris & Co., chemists Edmund Street.

A well-known pharmacist, returning home with his wife about two o'clock in the morning, found his front door wide open, with the gas full on, and the attendant and children asleep in bed. Happily nothing was missing. The wind had forced the door open, and from what could be gathered it had been so for about three hours.

Messrs. F. H. Prosser & Co., chemists and drug and spice grinders, Farm Street, sent a call on Friday, January 20, to the Central Fire-brigade to extinguish an outbreak in the store-room. A hand-pump sufficed to suppress the flames before any serious damage had been done. The fire was caused by the friction of the machinery igniting the floor.

## Guardians and Dispensing.

At a meeting of the committee of the Worcester Infirmary last week, the Chairman announced that it had been decided to revert to the old system of having their own dispenser, and buying their own drugs from a wholesale house. It was now a moot question whether they should appoint a male dispenser or a lady. They had no quarters for a male dispenser, and the lady dispenser would be cheaper, but he moved that a non-resident male dispenser be appointed at a salary of 85*l.* The previous dispenser got 70*l.* and "all found." The seconder of the motion thought ladies "all very well," but he did not think a lady dispenser would be so accurate. Many other members, however, were in favour of the appointment of a lady dispenser. It was pointed out that there was accommodation in the nurses' home for a lady, and an amendment that a resident lady dispenser be appointed at a salary of 45*l.* was carried, the ungallant Chairman remarking, "I am very, very sorry. If there is any friction or difficulty, don't throw the blame on me."

At the meeting of the West Derby Guardians (Liverpool) on January 18, the Clerk made a statement with regard to the arrangements for dispensing drugs in the Union. Some of the medical officers were appointed on condition that they provided the medicines required, and others were elected on the understanding that the Guardians were to supply the medicine. The expenditure for the Bootle district for the past twelve months was 106*l.* 14*s.* 5*d.*, and for Walton 98*l.* 5*s.* 8*d.* This did not include anything in respect of dispensers' salaries. With regard to Kirkdale, Dr. Sheldon had during the six months attended 511 cases.



Dividing the grant of 60*l.* for the medicines by the number of cases attended, the result would give 1*s.* 2*d.* for each patient, which he thought was not an extravagant sum for the treatment of a sick person. Dr. Davies said he was not satisfied with the statement, and asked the Clerk to read the letter he had addressed to him on the subject. The Clerk refused, because the letter, he said, was not couched in courteous or decent terms. Dr. Davies insisted, but the Board refused to hear the letter, and the matter ended, the Clerk remarking that the present dispensing system was the wisest one in the interests of the Union.

#### Sulphur in Gas.

At Greenwich Police Court on January 24, the South Suburban Gas Co. was summoned, before Mr. Baggallay, by the Lewisham Borough Council for supplying gas containing sulphur in excess of the legal limit. Mr. Templar Down, who appeared for the Council, said the company had deliberately offended, having abandoned the process of extracting sulphur from the gas. Mr. Horace Avory, K.C., for the defendant company, said they had abandoned the lime process for the purpose of avoiding what was admitted to be a nuisance. Thus, he argued, the excess of sulphur arose from an unavoidable cause, because it could not be done except by causing a public nuisance. Sir George Livesey, chairman of the defendant company and of the South Metropolitan Gas Co., gave evidence in support of Mr. Avory's statement, and Mr. Baggallay said he would consider his decision.

#### The Decimal Association.

The annual report of the Decimal Association, which has just been issued, describes the progress of the movement during last year. It will be remembered the Weights and Measures (Metric System) Bill was read a third time in the House of Lords on May 17, and sent to the House of Commons. Every effort will be made to carry the Bill through the Commons during the coming Session, and definite steps are now being taken with this object. As a result of a special canvass, 330 votes have been promised for the Bill when it reaches the Commons. The report refers to the favourable attitude of the General Medical Council to the Bill (see *C. & D.*, June 4, 1904, p. 914), and describes colonial feeling as in favour of reform. During the past year the Association arranged for several lectures on the metric system, and prizes have been offered for essays on the best means of effecting the transition quickly. Since March 1, 1904, 377 new members have joined the Association, and it is now stated that the movement has the support of a large majority of the most eminent men and leading firms in the country.

#### Sheffield Notes.

The Sheffield Pharmacy Athletic Club, on January 19, met Wisewood F.C. in a return match and defeated them by 4 goals to 2. The chemists who scored were Oswald I, Stathers 2, Preston 1. It was a hard-fought match on a snow-bound ground.

The many friends of Mr. John Bew, chemist and druggist, both in Sheffield and the surrounding district, will be sorry to learn that he is lying very dangerously ill at Askern Spa, Doncaster, there being little hope that at his advanced age (he is seventy-four) he will recover.

At a meeting of the parishioners of St. James's Church, on January 20, the Vicar put forward several suggestions for improving the musical portion of the service. The Vicar's schemes were strenuously objected to by, among others, Mr. Job Preston, chemist and druggist, and Mr. Preston's intervention created quite a scene. On a division being taken the meeting was found to be equally divided, and the matter was adjourned.

#### Poisonings.

Since our last record eight poisonings have taken place, of which all but three were suicidal. Unscheduled poisons—hydrochloric acid and salt of lemon—were taken in three cases. The first was taken by Louisa Brisley (33), of Margate. Mr. John Reeve, chemist and druggist, deposed that deceased had purchased the poison at his shop, saying that she wanted it for cleaning purposes. He cautioned her as to its character, and labelled the bottle "Poison." The Coroner said he was surprised that such dangerous stuff

was not included in the Poisons Schedule.—The salt of lemon was taken by Elizabeth Stevens (50), a mantle-maker, of Camberwell Road, S.E.—Carbolic acid was taken in mistake for cough-mixture by George Cocksedg (70). He was employed by the Battersea Borough Council as a roadman, and used the acid for drain-flushing.—Two bottles labelled "Laudanum" were found by the dead body of the wife of a grocer's assistant, named Foster, at Hastings. The woman had apparently drunk the contents.—Laudanum was taken by Gertrude Hanbury (25), after being mildly reproved by her father for purchasing a patent medicine through the post.—Mrs. Betsy Holsford, of Leigh, Lancashire, died in somewhat mysterious circumstances after being given sleeping-draughts by her brother-in-law, George Harrison. A servant testified that Harrison sent her for laudanum, telling her to say it was for rubbing purposes. The inquest was adjourned pending the analyst's report.—Prussic acid was taken by Thomas Watkin (61), of Birmingham, a stationer's manager. Mr. John Bellamy, pharmaceutical chemist, of Bellamy & Wakefield, Easy Row, Birmingham, said the deceased asked for something to poison a dog, and prussic acid was supplied. It was afterwards discovered that he did not own a dog. The requirements of the Pharmacy Act had been complied with in the most minute details.—James Hall (66), a ship's modeller, living at Mile End, was poisoned by drinking spirit of salt in mistake for gin.

## Irish News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

#### Fire.

The premises of Messrs. Maxwell & Greer, chemists and druggists, Derry, were destroyed by fire on January 24. The local brigade being unable to cope with the outbreak, assistance was sought from the military barracks, and a squad of the Royal Inniskilling Fusiliers was sent, under two officers, and did magnificent work. A number of minor explosions, caused by chemicals, created some alarm, but no one was hurt.

#### Empties Trouble.

At the meeting of the Trim Board of Guardians a letter was read from Messrs. Hunt & Co., Dublin, enclosing an account for unreturned empties, and expressing regret that previous correspondence had not had the effect of inducing the Guardians to see that the empties were returned. They were now outstanding, and the longer they remained in the hands of the Guardians the more they deteriorated. The medical officers were directed to look up all the empties in their possession.

#### A Trivial Matter.

At the meeting of the Trim Board of Guardians, a letter was read from the Secretary of the L.G.B. stating that the following sums had been struck off the Guardians' claim for recoupment in respect of drugs, etc.: Summerhill dispensary district—overcharges 1*d.*—(laughter)—medicines supplied in excess of requisition, 1*s.* 8*d.*; insufficient discount, 2*d.* The Secretary added: "I am to draw your special attention to the fact that recoupment should not have been claimed in respect of this amount, and, having regard to the inconvenience caused to this Department by its inclusion (even though the amount be small), I am to request that you will be more careful in future in the discharge of your duties as regards the preparation of the claims for recoupment." In connection with this letter the Clerk submitted the following statement: "Total amount of contractor's bill—35*l.* 12*s.* 1*d.*, less 25 per cent. discount taken off—8*l.* 18*s.* 1*d.* Proper discount—8*l.* 18*s.*—leaving 26*l.* 14*s.* to be paid the contractor. Actual amount paid the contractor—26*l.* 14*s.* In three items the contractor overcharged  $\frac{1}{2}$ *d.* in each case, and in two cases the contractor undercharged  $\frac{1}{2}$ *d.* The actual overcharge was therefore  $\frac{1}{2}$ *d.*, 25 per cent. of which would be one-eighth of a penny, which could not be taken into consideration. Several Guardians said the L.G.B. must be hard up for a job.



## Personal.

Dr. Meredith R. Whitla, M.P.S.I., Monaghan, was last week returned at the head of the poll as Councillor for the Urban District of that town.

Professor Barklie, of Belfast, has been appointed analyst for the county Derry by the County Council, the remuneration being 100*l.* per annum, covering 500 analyses, and 5*s.* for each additional analysis.

Dr. Henry O'Neill, B.L., J.P., the new High Sheriff of Belfast, was trained as a chemist and druggist. He served his apprenticeship with Messrs. Wheeler & Whitaker, chemists, of High Street, a firm long since defunct. Dr. O'Neill is Editor of the "Belfast Health Journal."

At the examination held under the authority of the General Synod of the Church of Ireland in religious knowledge in intermediate schools, Oswald S. Johnston, son of Mr. Roden Johnston, pharmaceutical chemist, Downpatrick, has been awarded the medal for Greek Testament, with the very high answering of 92 per cent. The result is the more remarkable when it is noted that Mr. Oswald Johnston is not yet sixteen years old.

## Scotch News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

## Personal.

Mr. W. Gow Miller, chemist and druggist, Wick, has taken over his late brother's business at Pulteneytown, and will carry it on as a branch, under a qualified manager.

Mr. A. R. Clark, chemist and druggist, Braemar, as Secretary of the local Golf Club, has compiled a prettily illustrated album of the nine-hole course there, in connection with the approaching bazaar, which we hope may have less hazard in it than the course has. Mr. Clark tells us that if any brother Chips are in the Braemar district he will always be pleased to give them a round.

## Alleged Cheque Frauds.

Stanley Fox and Lila Chamberlain, a smartly-dressed young couple, were arrested at Montrose on January 19 on suspicion of fraud in connection with bogus cheques. The prisoners (aged nineteen and eighteen respectively) are wanted at Forfar, Aberdeen, and in England on charges of fraud. An Aberdeen chemist is said to be one of the tradesmen victimised. A cheque on the London City and Midland Bank, Ltd., Birmingham branch, for something over 1*l.* was presented to him in payment for some purchases. The chemist was somewhat doubtful of the cheque, and before accepting it got it endorsed by, it is stated, an Aberdeen man. This done he accepted the cheque, paying the balance "in change" to the purchaser. The cheque was returned by the bank as worthless. The cheques issued are believed to be some that were stolen about a year ago in the South of England. The prisoners appeared before the Aberdeen Magistrates on January 20, and were remanded.

## In Liquidation.

Lord Low has issued a note for Mr. J. A. R. Durham and Mr. J. Craig, liquidators of the Scottish Drug Dépôt, Ltd., of Edinburgh, to "fix liquidators' remuneration, approve of deliverances, grant authority, to divide funds, approve of accounts, discharge liquidators, dissolve company, etc." On February 19, 1904, the Court of Session ordered the winding-up of this company. In the following month Lord Low confirmed the appointment of the law agents in the liquidation and sanctioned the liquidators carrying on the branches or closing such as did not pay, until sale of the branches was effected. The note states:

In connection with the business at 16 Nicolson Street an action of damages concluding for 500*l.* and expenses was, with the sanction of the Lord Ordinary, raised against the company and the liquidators at the instance of a boy whose face had been injured by a quantity of mercury and nitric acid purchased at the said shop. After making due inquiry and before lodging defences, the liquidators, with the sanction of the Lord Ordinary pronounced of this date [July 16, 1904], compromised the said action by a payment of 95*l.*, to include expenses.

All the businesses and all the other assets of the company

have now been disposed of, and there is a balance in hand of 925*l.* 18*s.* 10*d.*, out of which are to be paid the liquidators' remuneration and law expenses, the preference claims, and the balance to the ordinary creditors *pro rata* on admitted claims. In all, 203 claims, amounting to 5,193*l.* 17*s.* 7*d.*, were lodged. The preference claims disposed of were: Admitted to preference, 117*l.* 9*s.* 4*d.*; rents and property-tax, etc., 200*l.* 19*s.* 7*d.*; admitted to ordinary rank, 97*l.* 6*s.* 11*d.*; rejected, 3*l.* 1*s.* 7*d.*. The ordinary claims were disposed of thus: Admitted (including 97*l.* 6*s.* 11*d.* already mentioned), 4,708*l.* 3*s.* 11*d.*; rejected, 164*l.* 3*s.* 2*d.*. The liquidators now desire to have the funds divided and the liquidation closed.

## Glasgow Notes.

"Night and Day Pharmacy" is the sub-title, prominently displayed, which a West-end chemist gives to his establishment.

Mr. W. L. Currie, President of the local Association, was a guest, in his official capacity, at the Master Plumbers' dinner last week.

The dinner of the local Association has been fixed for March 8 in the Grosvenor Restaurant, Gordon Street, and tickets (7*s.* 6*d.* each) will be on sale in a few days.

Mr. F. Soddy, M.A., the University Lecturer in Physical Chemistry, has arranged to give a special series of twelve or fifteen lectures on the phenomena and problems of radio-activity.

Local opinion is anything but enthusiastic over the new Clause 7. The feeling is divided between deep disappointment and the doubtful consolation that the modification is *a pis aller*.

A local chemist who enjoys a polyglot connection has just received a communication addressed: "Mons. —, pharmacien, Rue Nils, Glasgow, Angleterre, Ecosse." Scotland is revenged at last.

The Trade Association held its members' quarterly meeting on January 26. The topics considered comprised replies from manufacturers *re* protection of prices, shop-hours, and dispensing-prices for proprietaries.

The proprietors of Scott's emulsion have placed their striking electrical sign with several chemists in the city and suburbs. The intermittent chromatic illumination of the well-known figure of the fisher and the monster cod seems to fascinate the *flâneur* whether juvenile or adult.

Mr. Mair's lecture was a gratifying success alike as to the attendance, which included a good many ladies and country members, and to the merit and effect of Mr. Mair's performance, which proved a model of compact and suggestive description. The local papers gave a very good report of the meeting.

An exhibition of photographic work, chiefly amateur, is open at present in the Fine-art Institute, Sauchiehall Street. It bears the somewhat ambitious title of "The Scottish Photographic Salon." The collection is enriched by several creditable contributions from local chemists and chemists' assistants.

The rapid expansion of the trade in photographic goods in Glasgow and the West is attested by the announcement that the Albion Albumenising Co. is shortly to remove to more commodious premises in Howard Street, and that Houghtons, Ltd., of High Holborn, has opened a Glasgow branch at 74 York Street.

The Glasgow Faculty of Physicians and Surgeons continues annually to appoint two Visitors whose nominal duty it is to inspect all local "apothecaries' halls" and drug-shops in order to ascertain that pure drugs, etc., are kept. But no Glasgow chemist has ever seen these Visitors. One wonders what would happen if a brace of them took their vocation seriously and attempted a perquisition?

In a recent recension of anecdotes about a once notorious Glasgow wag or wit, known as the Laird of Barloch, the following is given: When Dr. Thomas Thomson's famous work on chemistry was published a very severe review of it appeared in a London magazine. Dr. Thomson in as sharp a reply ascribed the authorship to Mr. Ure, of Dictionary fame. In allusion to which Mr. Douglas remarked, "If this were the case it was merely a very fine specimen of Uric acid."



## French News.

(From our Paris Correspondent.)

**THE SECRET OF SUCCESS.**—The "Matin" correspondent at the seat of war telegraphs to that newspaper that "stimulating pastilles were found on all the dead Japanese" in the trenches before Port Arthur. Unfortunately, he omits to give their nature or composition, but possibly this will follow by letter. Meanwhile it is said that at least one of the enterprising French manufacturing pharmacists is willing to pay a fair price for the recipe of the lozenges, possibly in the hope that there may yet be time to do an extensive export trade in them to Russia.

**DR. DOYEN'S CINEMATOGRAPH PICTURES.**—Although his lawsuit connected with the serum-cure is still pending, Dr. Doyen has another case before the Paris Courts. In this one he has brought an action for substantial damages against a photographer who has been doing a trade in cinematograph-films of photographs of some of Dr. Doyen's surgical operations. It is evident that when the doctor had the photographs taken it was not with any philanthropic idea of allowing the photographer to make a profit by selling the films. On the contrary, Dr. Doyen's idea was to pay for the photographs and to sell the cinematograph films himself, as a means, among others, of illustrating lectures in foreign schools of surgery. The conditions do not appear to have been stipulated, however, with sufficient clearness, and hence the lawsuit, the next hearing of which has been postponed until February.

**THE LIBRARY POET.**—In recording last week the passing away of an old servitor at the Paris School of Pharmacy, I should also have recorded the death of Guillaume Marty, who acted as library attendant for twenty-two years at the school. He stuck to his post to the last, although failing eyesight sorely handicapped him. It was not generally known that Marty employed his leisure in the library in writing verse, for he carefully concealed his literary talents from the scoffing stream of students by whom he was daily surrounded. An incident, however, brought his genius to light. Marty having insisted on a student retiring from the library at the closing-hour, a laboratory assistant (*preparator*) addressed him some sarcastic lines.

"O toi qui, de ces lieux, es gardien ce soir,  
Noble vieillard, rempli avec soin ton devoir."

Marty, not to be beaten, replied in a verse equally cutting and nearly twice as long, explaining his anxiety that the student should seek fresher air,

"Afin que ton beau corps devienne assez puissant  
Pour briser les liens qui l'attachent à l'enfance."

**AN ANTISEPTIC FLIRT.**—An amusing dialogue by Michel Provins, the well-known novelist, is being used as a pharmacist's advertisement. A first-class railway carriage, speeding from Paris to the Riviera, contains a well-dressed young man, and a pretty girl whose attention he is evidently trying to attract without success. Finally he draws from his pocket what appears to be a silver cigarette-case, and she breaks the silence by reminding him that it is not a smoking-carriage; he protests that as a medical man he condemns smoking and everything anti-hygienic, and that the little case in question contains antiseptic paper handkerchiefs, and having thus excited her curiosity they converse, as charmingly as M. Michel Provins's characters are wont to do, of hygienic microbes, etc. Finally he asks, "So you are no longer afraid of entering into conversation?" "Why should I fear an antiseptic flirt?" she replies. "It's not contagious, you know."

**A WEEKLY DAY OF REST.**—At a time when the Early-closing Act is coming into force in England, it is interesting to note that Senator Poirrier (the well-known chemical-manufacturer who has recently quitted one of the vice-chairs of the French Senate) has just submitted to that body certain amendments to the draft of the Weekly Rest Bill sent up by the Chamber of Deputies. He proposes to provide, in Article 1, that adult males shall not work more than six days a week even in establishments of "professional teaching or of charity" (*bienfaisance*). Young persons under eighteen and women of all ages come under the same rule, but where fewer than five people are

employed the weekly day may be replaced by two half-days. Article 2 provides for certain exceptions to the general closing rule (hotels, public conveyances, etc.). But even here the permission would only mean the substitution of two half-days for one day, the reduction of the yearly number of free days to fifteen, and the readjustment of rest in case of "season" trade. Pharmacies do not appear to be specially named, but it may be supposed that they will be allowed to profit by one or all these exceptions.

**FIRST-AID.**—It is one of the anomalies of French life that the victim of a street accident is invariably conducted by the police or other persons to the nearest pharmacy, but the pharmacist receives no instruction in first-aid. The Rhône Pharmacists' Syndicate thinks first-aid classes should be opened at the schools of pharmacy, and forwarded its resolution to the General Association of French Pharmacists. This body, however, has advised the Syndicate to let well alone. At present the pharmacist "does a work of humanity," and incurs no legal responsibility. Were he trained he would probably be officially called upon for attention in cases of accidents, and should complications follow could be sued for damages. Many French pharmacists, as a matter of fact, pick up notions of dressing during service in Parisian hospitals as "internes," and the Association suggests that in cases of real ignorance the Ambulance Classes of the "Union des Femmes de France" (Red Cross lectures, etc.) might be advantageously followed by pharmacists. In addition to this, the well-known jealousy of the medical profession would be a further impediment to any systematic training of pharmacists in minor surgery.

**OBITUARY.**—A prominent Paris pharmacist has recently passed away in the person of M. Marc Boymond. He had been a member of the Paris Society of Pharmacy since 1876, and, after acting as Annual Secretary in 1884, was elected President in 1894. For many years he was proprietor of one of the historic pharmacies of Paris at 21 Faubourg St. Honoré, built for Apothecary Lescot in 1821, an Army pharmacist who had seen service under the great Napoleon. This pharmacy was removed a few years ago to more modern premises in the Boulevard Haussmann. M. Boymond always took a keen interest in scientific pharmacy, and was a frequent contributor to its literature.—The death is also announced of M. Georges Thomas, of Agen, a wholesale druggist of that town and President of the local Chamber of Commerce. He obtained notoriety a few years ago by the energetic campaign he started for forming a plan for regulating the sale of pharmaceutical specialities (patent medicines) in France. He called a general meeting of manufacturers and representatives of retail pharmacists at the Grand Hôtel, Paris, but although his project was sound he did not succeed in getting it adopted.

**MATÉ, OR PARAGUAY TEA,** the habitual drink of twenty million inhabitants of South America, has been scientifically studied by M. Thevenard in the Laboratory of Materia Medica at the Paris School of Pharmacy. The yearly consumption is about 100,000 tons. Aimé Bonpland, the great French naturalist (captured and imprisoned by Francia, the Paraguayan dictator, lest he should found a model factory at Panama), suggested to the Brazilians to legally protect the trees and prevent their destruction during the picking season. In 1867 Demersay showed maté at the Paris International Exhibition and founded a Maté Club at the Café Mazarin. In 1878 Dorvault had some idea of founding a maté-factory in South America in partnership with Ménier (the great *chocolatier* was then a wholesale druggist); but the death of these two leaders of French pharmacy prevented the project from being put into effect, and the idea was carried out by the Germans twenty years later. In 1889 the annual consumption in France rose from half a ton to two tons, and may now be 10 tons per annum. It pays no duty, and costs from a shilling to 1s. 8d. per lb. (when bought in bulk). The small quantity of maté sold in England comes for the most part from France. The cultivation of maté has been attempted in Algeria, New Caledonia, Tahiti, the Congo, and Madagascar. In the last named colony the higher plateaux seem to be favourable, in the others little or no success has been obtained.



## Colonial and Foreign News.

**ETHER IN POLAND.**—The large quantity of ether consumed in the Polish provinces of Russia used to be exclusively imported from Germany. To obviate this, the Polish distillers and spirit-manufacturers have combined and opened a special factory for the production of ether in the Government of Petrikau.

**MORE COMBINATIONS.**—There is the possibility of a combine of the five most important German coal-tar colour factories. The Hoechst-Cassella group have entered into oral negotiations with the Elbertfeld-Berlin-Ludwigshafen combine, and it is expected that a written agreement will shortly be drawn up.

**"DEATH IN THE CUP."**—The Imperial Board of Health, Berlin, in a memorandum urges that the Communion Cup should be slightly turned on being passed to the next Communicant, and the edge occasionally wiped with a cloth to prevent the spreading of contagious diseases. From recent experiments made by Dr. Huss and Dr. Roepke, it has been proved that these precautions are of no avail against consumption. Of eleven guinea-pigs injected with the remains of the wine left on the edge of a chalice partaken of by consumptive patients, eight succumbed to the disease.

**ITALIAN QUININE.**—In a recently published Ministerial Decree, the Italian Government claims the right of selling to the public all the salts of quinine and in any form. Many pharmacists, especially those in business in the malaria-infected districts, will be severely hit by this, as the profit made on the sale of quinine salts is now very small indeed. The pharmacists of Naso, in Sicily, have sent a circular to all Italian pharmacists urging them to resist the Government's intention of monopolising the sale of quinine salts, even by taking judicial proceedings. They hope shortly to hold a congress, and intend using the daily Press in their movement.

**COMMONWEALTH TARIFF-DECISIONS** including the following were gazetted during the month: Alphozone (succinic peroxide), free; THE CHEMIST AND DRUGGIST, free; cocoa, malted, 1*d.* per lb.; silver or gold mounted combs, 15 per cent.; lithophone (composed principally of barium sulphate, zinc oxide, and zinc sulphide), 1*s.* per cwt.; soap-paper, consisting of paper coated with soap, 3*d.* per lb.; rubber sponges, 15 per cent.; ebonite screw stoppers, with rubber rings, stoppers free; if internal rubber rings, 15 per cent.; crude wool-grease, in packages not exceeding 4 lbs. in weight, 4*s.* per cwt.; N.E.I. (Tariff), 2*s.* per cwt.; crude wool-grease (lanoline), 20 per cent.

**RUSSIAN NOTES.**—The Russian Minister of Education, says the "Pharmatrevitcheskii Journal," has authorised the increase of Jewish students at the Novorossisk University pharmacy lectures to 25 per cent. This University will in May graduate its first students with the right to practise pharmacy. There are at present forty attending the lectures.—In view of recent criticisms on St. Petersburg pharmacy hours of labour, it is interesting to read in "Nashi Den" that one more (nine in all) St. Petersburg pharmacy has introduced the double eight-hours' shift for the assistants, in place of the fourteen-hours' day still in vogue in the rest (about a hundred in all), where night service has to be added.

**GERMAN SPIRIT IN 1904.**—According to the annual report of the Berlin Spirit Centrale for 1903-4, the amount of spirit passed through its hands was 306 million litres, and the amount sold was 306½ million litres. The share of the Centrale of the home-trade business both as regards production and sale again shows a considerable increase over the previous year. The average amount paid to the distiller works out at 46.54*m.* per hectolitre. Respecting the production for 1904-5, the report states that the restrictions regarding production have been renewed in a formal manner, but they are so left that the distillers have full freedom which in practice means that each distillery will work at its full capacity. The report urges distillers to satisfy the demand for the current year by working at high pressure, and hopes by the plentiful cultivation of potatoes to bring back prices of spirit to a normal level. The total sales of denatured spirit were eleven millions in excess of those of the previous year.

## South African News.

(From our own Correspondents.)

**Note.**—"The Chemist and Druggist" is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:

South African Pharmaceutical Association.  
Pharmaceutical Society of Cape Colony.  
Natal Pharmaceutical Society.  
Transvaal Pharmaceutical Society.  
Rhodesia Pharmaceutical Society.  
Northern District Chemists' Association.  
Pharmaceutical Society of Orange River Colony.

### Cape Colony.

**MR. N. O. RUFFEL** of Messrs. N. O. Ruffel, Ltd., Kimberley, was in the Cape peninsula on a holiday when the mail left.

**A POISON TRAGEDY.**—At Port Elizabeth on December 31, 1904, Mr. C. F. Theale, proprietor of the Queen's Pharmacy, in Queen Street, committed suicide. Mr. Theale had been, for some time a resident of Port Elizabeth, and was latterly in financial difficulties. His assistant on returning from tea, found Mr. Theale dead in the back premises. A *post-mortem* revealed that death was due to prussic-acid poisoning.

**CONTRACTS SETTLED.**—Messrs. P. J. Petersen & Co., Cape Town, have been appointed contractors for the supply of medicines and medical comforts to the Cape Government Railways (western system) during the present year. This same firm are also the successful tenderers to the Kimberley Hospital. Messrs. A. Cleghorn & Darroll, Cape Town, have been appointed dispensing chemists to the Cape Government Railways (Cape Town) and the Table Bay Harbour Boards; and a similar appointment is held by Mr. J. Sowden, Rondebosch, for his district.

**SOUTH AFRICAN COTTON.**—It is proposed to grow cotton in the Transkeian territories. Mr. A. V. Mellor, F.R.G.S., F.R.H.S., and others are doing their utmost to promote the industry. Mr. Mellor states that all lands lying forty degrees north or south of the Equator that produce mealies or wheat will grow cotton, but sandy soil is unsuitable. Six months after planting it is ready for market, and the seeds form an admirable food for all kinds of stock. He offers to supply seed in small quantities for experimental purposes, at cost of postage, provided planters will report results for the information of the British Cotton-growing Association.

**ADDRESS TO BOX-NUMBER.**—The Postmaster-General of Cape Colony, writes our Cape correspondent, again requests the merchants of the Colony to make a special feature of having their mails addressed to their P.O. boxes. Nearly all the business firms in South Africa have a box at the Post-office, and when addressing them through the post all that is necessary is the name of the firm, the city or town, and the box-number. This facilitates sorting on the other side. When the street address is placed on correspondence, it is passed along to the street-sorting department, with the result that delay takes place in delivery. Some firms have the name of the town printed right across the middle of the envelope, under that in prominent figures their P.O. box-number, with their name at the bottom of the left-hand corner; a departure which, we believe, is fully appreciated in South African post-offices. Our readers doing an export business with South Africa should instruct their staff to have the box-numbers of clients placed on all mail matter going out. For over-sea mails it might be advisable to add to the idea here outlined, and have the country placed on the top left-hand corner of the envelope. All that the officials at St. Martin's-le-Grand require to read is the country and the town.

**CHRISTMAS IN CAPE TOWN.**—With the thermometer at 95° in the shade and a hurricane blowing there can be little Christmas about, says the man from Europe and America. And yet, writes our Cape correspondent, the South African enters into the spirit of the thing for all the world as if he was at home in the Old Country. He insists upon turkey, which, unless brought from over-sea, is insipid; he has his plum pudding—made just as like his mother used to make it as is possible in the circumstances. While the older members of humanity have really to make an effort to get down to Christmas, the youngsters manage to get the same



amusement out of it, and the ladies come in for extra attention in a way, inasmuch as it is the time of times for giving presents, and sometimes it is a good thing for the chemist. The *C. & D.* man had a look round at Christmas-time to see all the "pretty things," and found Messrs. Lennon, Ltd., at their Adderley Street and Long Street pharmacies, had a good range of high-grade holiday-goods. All tastes were catered for, from the modest sexangle eau de Cologne or 2s. 6d. brush and comb, to presentation-cases running into big figures and mounted sprays and toilet-articles. A well-known figure in the Adderley Street pharmacy was missing this year, in the person of Mr. J. Johnson, the retail manager. That gentleman was unfortunately seized with a sudden illness, but when the mail left he was well on the way towards complete recovery. Half-way up Adderley Street, on the left-hand side, is the British dispensary of Messrs. Heynes, Mathew & Co. This firm showed more English perfumery this year than probably on any previous occasion. French perfumes, soaps, and toilet-requisites were also very largely represented in the stock. The manager, Mr. J. Clayton Smith, showed the *C. & D.* man some exceedingly handsome presentation-cases, sprays, and toilet-luxuries. Most of the silver-ware was imported from England and manufactured there, and so were the cut-glass goods, but whether the latter are of British manufacture or not, it would be difficult to say. Higher up the street still, and on the opposite side, is the pharmacy of Messrs. P. J. Petersen & Co. The windows of this pharmacy lend themselves to dressing better, perhaps, than any others in the Cape Colony, and full advantage was taken of this fact at Christmas. From top to bottom the exhibit was draped with art muslin of a yellow colour, interspaced and decorated with flowers and green ribbon. Perfumes, of course, figured prominently, while some really nice toilet-sets were displayed. Cologne, such as Luce's, Mülhen's 4711, and the many Cologne firms' products, together with Piver's and Roger & Gallet's high-grade perfumes, were well to the fore. It goes without saying that none of the firms here mentioned forgot the photographic portion of their Christmas and New Year trade, and this is always well catered for. All in all, the trade done by the druggists as a body in the Cape peninsula failed to come up to expectations, but a few expressed themselves as satisfied under present conditions of trade.

#### Transvaal.

**HORSE-SICKNESS PREVENTIVE.**—Dr. Theiler, P.V.O. of the Transvaal, claims to have discovered a method of inoculation against horse-sickness which is trustworthy. He states that out of thirty-four animals tested in his last experiment only one died of horse-sickness.

**A CHEMIST'S DEATH.**—Last month the inhabitants of Randfontein were shocked to hear of the death of Mr. Sam. Davison, of the firm of Thomson & Davison, chemists. Dr. Adam, who was called in, pronounced death to be due to poisoning. Deceased was well known to local residents, and was deservedly popular.

#### PHARMACEUTICAL SOCIETY OF CAPE COLONY.

A MEETING of this Society was held at Cape Town on December 24, 1904. There were present Messrs. A. J. Rivett (Lennon, Ltd.), F. Mathew (Heynes, Mathew & Co.), G. Darroll (A. Cleghorn & Darroll), G. A. Deans (G. A. Deans & Co.), T. James, C. W. Brydges, S. Johnson, J. Lindsay, M. Strange, Tothill, W. E. Young, Dr. Froembling, and the Secretary (Mr. J. Dell). The case of *Rex v. Jansen* (see *C. & D.*, January 14, p. 40) was discussed, but the meeting did not come to any definite conclusion on the matter. It was agreed to await the decision of the Attorney-General and discuss the result at an extraordinary meeting to be held in January.

#### THE CAPE TOWN INDUSTRIAL EXHIBITION.

(From Our Cape Correspondent.)

MESSRS. SPRATT'S PATENT, LTD., London, whose local agents are Messrs. R. Wilson, Son & Co., Cape Town, have a very nice display of their specialities, and the "doggy" man should find much of interest in it; also poultry-

fanciers. The firm's many products are so well known in South Africa that it is a matter for wonder that more druggists do not interest themselves in business of this nature. Just why one should be expected to get one's dog-biscuits or poultry-foods through sources outside drug-circles it is hard to explain; but there are some prominent druggists who cater for this class of trade in South Africa, and among them Messrs. T. E. Jolly & Co., Johannesburg, and Mr. E. J. Adcock, Krugersdorp, who carry Spratt's products generally in stock. Chemists in South Africa who are looking out for paying side-lines to their ordinary business, and who want to keep within their sphere of trade, might do worse than see how much money there is in Spratt's specialities, and how much they have been letting the "other man" ("General Dealer") take from them.

Messrs. Alex. Riddle & Co., Ltd., London, show Stower's lime-juice and lime-juice cordial. Mr. Harry Hewett, the firm's local representative, is in charge of the exhibit. Proceeding on our tour we arrive at the exhibit of the South African Chemical-factory, whose factory is located at Maitland, Cape Colony. This concern makes a speciality of blackings, and turns out quite a large assortment of different kinds to suit all tastes, some of which are very neatly packed in tins and bottles. The firm has a staff of men cleaning boots free, and we have the manager's word for it that the goods are equal to the imported.

Among the many pretty kiosks is that of Messrs. Chivers & Sons, Ltd., manufacturing confectioners, Histon, Cambs, whose local representatives are Messrs. F. H. Clarke & Co., Ltd., Cape Town and elsewhere in South Africa. Table and other jellies, canned fruits, and other household requisites are well displayed, together with the many other products of the firm.

The Yost Typewriter Co., Ltd., whose South African branches are under the management of Mr. B. Bartholomew, show typewriters, cash-registers, office-furniture, duplicating-machines, and typewriter accessories. The mail of the average druggist in South Africa is not large enough to warrant a typewriter, but the "National" cash-registers from Dayton, Ohio, are to be found in drug-stores throughout the country.

Continuing our way along the block, tasting Callier's chocolates *en route*, we reach the stand of Van Riebeeck Table-water in another portion of the grounds. Van Riebeeck is the "Polly" of South Africa, and the South African boarding a steamer at an English port on his way home can get his favourite water in his whisky; and wherever the snort of the iron horse is heard in the Southern portion of what many people are still pleased to call the "Dark Continent," there you will find the table-water that took its name from the first Dutch governor at the Cape. The Chiswick Soft-soap Co., Ltd., has a kiosk dressed with its many products, but we hope to deal with this, and the remainder of the exhibits interesting to our readers, next week.

It should be mentioned that the Cape Times, Ltd., Cape Town, has the sole right to take photographs within the Exhibition grounds, and that many of the stands which we would like to have illustrated cannot be so dealt with, as our correspondent may not use his own camera, and cannot get official photographs quick enough.

CERTAIN important changes are being made in the Customs tariff of the Philippines, a full list of which will be found in the "Board of Trade Journal" of January 19.

DURING the ten months ended October 1904, the value of imports of drugs and chemicals into the Transvaal amounted in value to 387,000*l.*, compared with 444,000*l.* for the corresponding period of 1903.

THE GATHERING OF SAMPHIRE puzzled Mr. Justice Joyce the other day. He had forgotten what Shakespeare said—

"Half-way down  
Hangs one that gathers samphire: dreadful trade!"

Samphire is an ingredient for pickles ("herbe de Saint Pierre"). A variety of it is used as a salad in St. Helena, but it is the sea-samphire that Shakespeare and Mr. Justice Joyce referred to. It is common on many parts of the English, but grows with difficulty on the Scotch coast. The Atlantic coast of Europe yields it as well as the Mediterranean and the Black Sea.



## India and the East.

(News from our own Correspondents.)

AT COORG, in Southern India, the cardamom-harvest has been completed with what ought to be a good outturn, as the season has been a favourable one.

MASONIC.—Mr. C. B. Robinson (of Messrs. Thomson & Taylor, chemists, Bombay), P.M. of Lodge Concord, has been again elected a Worshipful Master for the coming year.

ADULTERATION OF OILS.—The "Times of Ceylon" is informed that the citronella oil now being exported from Ceylon is not so badly adulterated as it used to be; and this doubtless partly explains the fact that the market-price for Ceylon oil is double what it was eighteen months ago. It is reported that quite recently a quantity of coconut oil, adulterated with kerosene, was brought to Colombo and offered for sale.

BUSINESS CHANGES.—The Medical Stores Depot in Wellesley Place, Calcutta, is to be shortly removed to a new building now in course of construction at Hastings, a suburb of Calcutta, the present site of the depot being required as an extension of the Central Telegraph Office, which it adjoins.—Messrs. H. R. Mody & Co., importers of soluble essences, chemicals, drugs, etc., have opened new premises at 224 Nagdevi Road, Bombay.



MESSEURS. LORIMER & Co.'s DISPLAY AT THE BOMBAY EXHIBITION.  
(Mr. Wright, the Company's Representative, is in the foreground.)

PLAGUE-SERUM.—In the Health Section of the Bombay Industrial and Agricultural Exhibition, a series of demonstrations is to be given by the Director of the Plague-research Laboratory, Parel, of the manufacture of the fluid used for inoculation against plague. The primary object of these demonstrations is to enable the public to ascertain by personal observation and by inquiry from the experts in charge of the manufacture the precise nature of the precautions which are now taken to guard against the contamination of the fluid by disease-bearing germs. It is bottled by a new method recently patented by Dr. E. Maynard, who was brought out by the Government of India last year for the purpose of perfecting his invention on the spot.

THE INDIGO-INDUSTRY.—The arrangements connected with the Indigo Research Inquiry now being carried on by the Bengal Agricultural Department in conjunction with the Behar Indigo-planters' Association are completed. A five years' lease has been taken of a factory and a certain amount of land at Sirsia, where the requirements for the experiments include vats, cake and press house, settling-tanks, steam-boiler, pump and engine, and a laboratory. There four European experts are conducting the work. A seed-farm has also been started at Dasua, near Delhi, where experiments in the cultivation of Natal, Java, and country indigo-seed are to be systematically carried out. The official estimate of the indigo outturn in Bengal this season is 33,040 factory maunds, against 41,560 factory maunds last year.

## American Notes.

(From our Correspondent.)

ANOTHER KIND OF "SQUIBB."—The "Oil, Paint, and Drug Reporter" states that Theodore Weicker, formerly of the firm of Merck & Co., has secured an interest in the business of E. R. Squibb & Son. This statement, however, has been officially denied by Dr. Squibb.

THE MANN BILL has passed the Lower House of Congress in Washington, and is now before the Senate for action. This measure prohibits the granting of a patent on the chemical itself, and restricts it to the process of manufacture. The measure is designed to make impossible the monopoly which certain German houses have for years had in America, and which has enabled them to charge big prices for their synthetics. Unfortunately, however, while the Bill is excellent in that respect, it threatens to kill American enterprise along chemical lines, for the process patent in the United States, unlike the process patent in Germany, affords almost no protection, since the burden of proof rests not upon the infringer, but upon the patentee. For this reason there is much opposition to the measure in some of the pharmaceutical journals and elsewhere, even though the N.A.R.D. is fighting for its passage.

A HIGHER STANDARD.—At a recent meeting of the Columbia University Council affairs relating to the College of Pharmacy were discussed. Plans for the advancement of requirements for several degrees in the newly merged school were adopted. The Council decided that the degree of graduate in pharmacy should be conferred at present and until further action by the College of Pharmacy at a separate commencement. It was decided, however, to raise the requirements for the course leading to the degree of pharmaceutical chemist, which will hereafter be a university degree. Candidates for this degree will be required to pass a much higher standard of admission than that fixed for the degree of graduate in pharmacy and to pursue a course extending over two full academic years. After 1907 the advanced degree of doctor of pharmacy—which now is conferred upon those who hold the degree of graduate in pharmacy and take an advanced course in addition thereto—will be conferred only upon those who hold the degree of pharmaceutical chemist and take an advanced course in addition thereto.

THE POWERS-WEIGHTMAN-ROSENGARTEN COMBINE continues to be a fruitful source of "copy" for the Philadelphia scribes, and many are the incidents told of the "Quinine Queen" (Mrs. Anne M. Weightman-Walker) in connection with the combine of the two chemical concerns (see *C. & D.*, January 14, p. 50, and December 31, 1904, p. 1046). After the death of her father, Mrs. Walker started by having herself put upon the pay-roll of Powers & Weightman at the salary her father had fixed for himself (amount not stated), and then commenced an era of reforms. Some of the older employes of the firm came on duty whenever it best suited them, and left off work at their own convenience. Mrs. Walker was in supreme command only forty-eight hours when she had a check clock installed in the plant, and a general order was posted notifying all hands that they must work according to an established schedule. A strike was threatened by the employes. She sent for the ringleaders, told them her ideas of business, and terminated the interview by saying that all those who could not or would not work a given number of hours for a stipulated rate of pay could quit. The 600 employes heard the message from Mrs. Walker, and not one resigned. A few days later Mrs. Walker ordered the paymaster to put up \$12,000 in envelopes, giving \$20 to each employe, with her compliments, without regard to age or term of service. The note accompanying the gift was brief: "With the best wishes of the William Weightman estate." Mrs. Walker has directed her real-estate manager to announce that she had \$10,000,000 worth of Philadelphia real estate to sell, as the present administration of the city is not regarded as "safe," and greater profits can be derived from other investments. Mrs. Walker abhors all publicity, and recognising the fact that her very great business interests and wealth make her more or less a public personage, she has caused it to be very generally understood that she has private rights.



## Supplements to the Winter Issue.

In which attention is called to the Advertisement Insets sent out with this Number, the contents being briefly epitomised.

THE opportunity of sending out circulars and price-lists with THE CHEMIST AND DRUGGIST occurs only twice a year, and of these the present issue is one. Some twenty-five firms and companies have taken advantage of this occasion to address the drug-trade in this distinctive manner. The insets thus brought together are as unique as they are attractive, and the vast army of *C. & D.* readers will not be disappointed in their search for novelty. The appended paragraphs, describing the insets in this issue, are arranged in alphabetical order, the position of the insets in the advertising-pages being indicated by the figures at the end of each paragraph. The next opportunity for inserting circulars, price-lists, etc., in this journal as insets will be the Summer Issue, to be published on July 29.

ALLEN & HANBURYS, LTD., Plough Court, Lombard Street, E.C., have a handsome inset in which malt-and-oil preparations figure largely. Chemists' specialties in other lines, including soaps, are also referred to, well-printed illustrations being the means of conveying to our subscribers what the articles look like. The saline season is approaching, and the time for fixing on new styles is the present. (Pp. 32 and 33.)

BRUNNER, MOND & CO., LTD., Northwich, Cheshire, show the way to generate carbonic-acid gas with the maximum of efficiency and the minimum of disadvantages. It is "Crescent" brand bicarbonate of soda that is thus offered to aerated-water makers, and before laying in a gas-generating material for the coming season the claims of bicarbonate should be weighed. (Pp. 142 and 143.)

BUTLER & TANNER, Selwood Printing-works, Frome, deal with the printing of price-lists and catalogues, approaching the question from the point of view that a price-list should be a permanent advertisement for the issuing firm. For that reason attractive format and printing are essential. (Pp. 174 and 175.)

CANTRELL & COCHRANE, Dublin and Belfast, have an inset telling of "The Beverage of the World"—C. & C.'s Ginger Ale. The sale of ginger ale is now greater than ever—a fact which testifies to the appreciation of the world. Other specialties of this firm are enumerated. (Pp. 142 and 143.)

ARTHUR H. COX & CO., LTD., Brighton, exhibit the cryptic C O X on the front of their inset. Pills and tablets are the goods advertised, a few special prices being given on the fourth page. It should be noted that all kinds of coatings for pills are produced at the Cox factory, and that tablets are obtainable either plain or sugar-coated. Notice the offer of packed Bland's pills. (Pp. 64 and 65.)

DURAFORT & SON (E. Schmolle, 42 Gutter Lane, E.C., sole agent) bring their list up to date by the inclusion of 1905 patterns of syphons. The porcelain core used in the new syphon-tops is excellent from a hygienic point of view. The section shown gives an idea of how thorough are the steps that have been taken to guard against metallic contamination. (Pp. 142 and 143.)

ELLIMAN, SONS & CO., Slough, have a magnificent brochure dealing with Elliman's Embrocation and R.E.P. and E.F.A. books. The feature of this inset is the special reproductions of nine of the Elliman pictures, and the offer to supply any one of the enlarged pictures for trade purposes. The hunting and racing scenes are the work of artists who have specialised in this department of equine portraiture. The method of obtaining the R.E.P. and E.F.A. books should also be studied, as the public are being made acquainted with these publications by means of an extensive campaign of advertising. (Inserted loose.)

WILLIAM GARDNER & SONS, Gloucester, insert an abridged price-list of the "Rapid" sifters and mixers.

These machines are adapted for various uses, each department of pharmaceutical industry being especially catered for. The chief features of the "Rapid" sifters and mixers are outlined on the end page of this inset. (Pp. 174 and 175.)

GOODALL, BACKHOUSE & CO., Leeds, and Southwark Street, S.E., wishing their quarterly price current to be in the hands of all the buyers in the drug-trade, use it as an inset to this issue. The sections of the list are: (1) Goodall's Packed Goods, (2) Patent and Proprietary Articles, (3) Grocers' Sundries, (4) Druggists' Sundries, and (5) Oils, Colours, Paints, and Drysalts' Sundries. This firm are the well-known manufacturers of "Yorkshire Relish," about which special terms will be found on the inner side of the back cover. (Inserted loose.)

C. J. HEWLETT & SON, 35-42 Charlotte Street, E.C., have a supplement devoted to quotations for standardised tinctures, in which our subscribers over-seas will be interested. The cover is an artistic piece of work. Hewlett's Malto preparations are also referred to on the outer page of the inset. (Colonial and Foreign copies only.)

THE ICHTHYOL COMPANY, Cordes, HERMANNI & CO., Hamburg, enclose a supplement devoted to ichthyol. The actual appearance of an original package is well shown by reproductions of a tin and labels, and a concise account of the uses of ichthyol, internally and externally, is given. (Pp. 32 and 33.)

JEYES' SANITARY COMPOUNDS CO., LTD., 64 Cannon Street, E.C., devote their inset to enumerating their special disinfectants. Coloured illustrations assist the reader in memorising the appearance of Jeves' "Sanitary" compounds. "Cyllin," a note of which is given in the circular, is the latest and most concentrated bactericide of the series. (Pp. 142 and 143.)

H. & T. KIRBY & CO., LTD., 14 Newman Street, W., tell of the progress of "Purgen," "the ideal purgative." Introduced in 1902, the medical profession has had abundant opportunities of confirming the assertions of the introducers. This inset also gives a good list of ailment-named pills, some of them being B.P. formulæ. (Pp. 64 and 65.)

McKESSON & ROBBINS, New York (S. Maw, Son & Sons, 7 to 12 Aldersgate Street, E.C., agents), make the McK. & R. capsuled pills the subject of their supplement. The front page gives a new reading of Atlas supporting the world, while the inside pages of the list contain a selection of the most popular pill-formulæ. The advantages of "Calox" dentifrice are stated on the outer page, from which it will be gathered that "Calox" is a distinct advance in dental science. (Pp. 142 and 143.)

THE MALTICO FOOD CO., 6 Bouverie Street, E.C., tell of the advantages of "Maltico" by publishing a lengthy analysis of the food by Mr. Lascelles-Scott. An interesting comparison with other foods is given in a series of analytical results; and that chemists may see what is being done in advertising the food to the public, a specimen of the announcements that are appearing in the daily papers is given. (Pp. 64 and 65.)

MEGGESON & CO., LTD., Miles Lane, Upper Thames Street, E.C., insert their current price-list as an inset to this number. The list is beautifully illustrated and printed, while the variety of lozenges quoted is probably greater than has ever before been brought together. Jujubes, pastilles, boiled sugars, capsules, pellets, essential oils, perfumes, and the numerous specialties that are figured will well repay careful perusal. (Inserted loose.)

THE PAPER-CUTTING AND TOILET-REQUISITE CO., LTD., 90 Goswell Road, E.C., figure, in an inset, nine qualities of toilet-rolls, as well as flat packets of sanitary paper and the necessary fixtures. The idea of endless rolls of paper is also adopted to office use as a handy means of keeping memorandum-paper. Musicians are also catered



for in the ribbons of transparent gummed paper for mending music and drawings. (Pp. 174 and 175.)

A. & F. PEARS, LTD., 71 to 75 New Oxford Street, W.C., reiterate the decided stand they take in the matter of discounts. The big and the little buyer receive the same discount, and thus are on equal ground as far as advantageous buying is concerned. The single word "Pears" is now appearing in the company's advertisements as an all-sufficient indication of this world-famed soap. (Pp. 32 and 33.)

RAINES & Co., Ealing, W., have an artistic inset devoted to frames and photographic developing and enlarging. The "Esmond" frame, which is figured, is one of the latest style of frames, the old idea of mitred corners being entirely abandoned in favour of the modern method of making a frame from one piece of wood. The department dealing with developing, printing, and enlarging is another that will interest photographic chemists. (Pp. 32 and 33.)

SHIRLEY BROTHERS, LTD., Whitecross Works, S.E., show how to cope with bad trade. The remedy is, according to this inset, to buy from an up-to-date house, and then the circular proceeds to tell of the special lines which have made Shirley's name known throughout the drug-trade. (Pp. 32 and 33.)

THE STANDARD TABLET CO., Hove, include their price-list of compressed drugs in this number of THE CHEMIST AND DRUGGIST. The secrets of success of this firm have been, to quote the circular, "perfect machinery, perfect organisation, highly skilled labour, scientific supervision, and unimpeachable quality of the drugs used." The variety of tablets mentioned in the list is extensive, and will be found to include all the kinds usually kept for retail sale or dispensing. (Pp. 32 and 33.)

STEVENSON & HOWELL, LTD., 95A Southwark Street, S.E., insert a distinctive circular calling attention to their pure essences, essential oils, and colours for aerated-water makers. The summit of perfection to which the "Perfect" soluble essence of lemon has risen is pictorially shown in a manner likely to be remembered. (Pp. 64 and 65.)

VINOLIA, LTD., Malden Crescent, Kentish Town, N.W., have a well-produced inset devoted to the fine range of toilet-preparations with which "Vinolia" is indissolubly associated in the minds of pharmacists. Details will be found of the cream, soaps, powders, pomades, dentifrices, smelling-salts, and other Vinolia products. (*Inserted loose.*)

THE WAND MANUFACTURING CO., Leicester, explain in a supplement to this issue how the company ensure repeat orders for pills, capsules, perles, and tablets. A special feature is made of Bland's pills in bulk and packed, there being also given specimen prices of capsules and perles. (Pp. 142 and 143.)

WILLIAM R. WARNER & Co. (British Dépôt, Francis Newbery & Sons, Ltd., Charterhouse Square, E.C.) have a sixteen-page inset which tells of Warner's soluble coated pills, "own-name" preparations, compressed tablets, and packed goods. The price-list will be found very convenient for reference, as the goods mentioned cover a very wide range. Notice particularly the line of popular non-proprietarys, the extended list of non-liable titles, and the new pharmaceuticals—effervescent formin laxative compound and elixir glycerophosphates soda and lime. (*Inserted loose.*)

MESSRS. FRANCIS NEWBERY & SONS received the following quaint epistle from the Gold Coast recently: "I have the honour most respectful to apply through you for your Brilliantine hair whiskers oil. I have read from one of the news papers that is good for a Gentleman use. Therefore I should like to deal with you; so that you might send me your catalogue to see them, and make my Indent at once for them, or if you should believe me; as a fidelity and forward me samples of each kind you have in your stores to show my Friends here. I should thanks you very much for anticipation, because they want some to buy thus why I have written you such letter. As a new friend to me so I hope you should forward me very urgent. And more also we never know price for each bottle, many of the people wanting such oil to buy. As I am here respecting your earliest spasmodically. I am Yours Friend, ROBERT GUSTAVUS ABOSSEY, Station Master, Bensu."

## A New Use for Charcoal.

LAST year, at the meeting of the British Association, Sir James Dewar, in an address on "Low-temperature Phenomena," gave evidence that he was attacking the problem in an entirely new direction (*C. & D.*, August 27, 1904, p. 390). The new agent used in the research is cocoanut charcoal, and at the meeting of the Royal Institution on January 20 Sir James demonstrated the progress he has since made in this direction. The lecture began with an historical *résumé* of the work done on the absorptive powers of charcoal. The Hon. Robert Boyle in 1684 published an essay in which he expounded a theory of the porosity of bodies. An Italian, Fontana, in 1775 seems to have first demonstrated the absorbent property of charcoal, the subject being afterwards extended by Priestley, Lowitz in 1791 noticing that charcoal extracts colouring-matter from water. Further researches by De Saussure, Graham, Stenhouse, Favre, and Silbermann established other properties; De Saussure showing that animal charcoal is much more effectual as an absorbent than wood charcoal and Graham discovering that not only will charcoal take colour-matters from water but certain metallic contaminations. Stenhouse combined platinum with the charcoal; and afterwards Hunter, of Dublin, proved that cocoanut charcoal is twice as absorbent as any other, and called attention to the selective action exhibited by charcoal. Tait and the lecturer in 1874 suggested the utilisation of the gas-absorbing powers of charcoal for improving high vacua.

After this preliminary review Sir James Dewar repeated Fontana's experiment to show the power of charcoal to absorb ammonia, and also demonstrated the properties of charcoal in absorbing sulphuretted hydrogen and clearing fluorescein from an aqueous solution. These experiments led up to the statement that the absorbent properties of all kinds of charcoal are considerably increased when the substance is cooled to the temperature of liquid air, although the power varies according to the kind of charcoal. A given quantity of cocoanut charcoal absorbs, for instance, 4 c.c. of hydrogen at ordinary temperature, but at the temperature of liquid air 135 c.c., nitrogen 15 and 155, and oxygen 18 and 230. Ordinary coal-gas from which the easily condensable constituents had been separated by solid carbonic-acid gas was shown to be non-luminous after passing the gas over charcoal, practically everything being taken out except the hydrogen—the experiment also serving to show the selective power of the reagent. Charcoal chilled by liquid air was in the next experiment shown to be of service in improving vacua. An imperfectly exhausted vacuum tube which permitted an electric current freely to pass was connected with a vessel of charcoal and the charcoal cooled by liquid air. On now passing a current through, the various stages of exhaustion were gone through—the striæ were soon reached, and finally the apple-green fluorescence which indicates that x rays are being given off. Another neat way of showing the selective power of charcoal is the spectroscopic method. A tube showing the complicated spectrum of air was connected with a charcoal reservoir, and the charcoal cooled, the spectrum slowly altering until only the hydrogen and neon lines remained. The method is a suitable one for separating helium and the other least condensable gases, and Sir James exhibited in action his "helium-factory," in which helium remained as the residue from air treated by cooled charcoal. The absorptive powers of charcoal were further exemplified in the case of radiometers filled respectively with air, hydrogen, and helium. Cooling the charcoal reservoir connected with the air-filled radiometer, a vacuum was quickly formed, in which the vanes rapidly revolved under the influence of the electric arc, while the hydrogen and helium filled instruments cooled with liquid hydrogen behaved similarly. That chemical combination does really take place in very high vacua was next demonstrated by combining perfectly dry phosphorus and oxygen, the visible glow in the tube being an indication that combination had taken place. "I am in hopes," concluded the professor, "that charcoal and liquid air will add another instrument of research to the great profession of science." It remains to add that the lecture-theatre was crowded in every part, affording a means of testing the improved means of exit that have been devised during the recess. Dr. Ludwig Mond was in the chair.



## Notes on Novelties.

Chiefly Medicinal, Pharmaceutical, or Relating to the Toilet.

### Iodic Acid and the Iodates

are quite the latest additions to materia medica. We give some notes elsewhere in this issue regarding Dr. Mackie's observations upon them, and we learn from Dr. W. H. Martindale, 10 Now Cavendish Street, W., that his firm is manufacturing calcium iodate, bismuth subiodate, and mercuric iodate, which can be obtained from that address in any reasonable quantity.

### A Growing List.

A CONSIDERABLE number of proprietary articles have been this month added to the P.A.T.A. list. The articles are: Arabella water; Armour's Medicinal Series of soaps; Chapman's entire wheat biscuits and malted entire wheat food; Cleaver's terebene soaps and toilet articles (selection); Frazer's tablets; Golding's tasteless paste, injection-powder, and other preparations; "Imperatrix" soap; Jensen's cod-liver oil; Mason's beef essences and dietetic preparations; Robb's soluble milk foods; Timm's tonic pills; Trucfitt's "Brillantine," "Euchrisma," and other toilet-preparations.

### Newfoundland Cod-liver Oil.

NEWFOUNDLAND cod-liver oil has quickly regained the reputation which it enjoyed thirty to forty years ago, and there seems to be little doubt that in the next British Pharmacopœia our oldest Colony will be specified as a source of this medicament. Much advance has, under the influence of the Government, taken place during the past ten years in the rendering and refinement of the oil, and in order to make their product better known Messrs. L. E. Thomas & Co., 43 Edge Lane, Liverpool, now offer to send 2 gals. carriage paid to any part of the United Kingdom on receipt of 15s. This gives retailers a chance of trying it.

### Calox.

THIS is the name of a new oxygen dentifrice which Messrs. McKesson & Robbins, of New York, have introduced, and which has had a most favourable reception by the American dental profession—so favourable, indeed, that the firm feel justified in giving its merits greater publicity in Great Britain. The peculiarities of the dentifrice are described in an inset in this issue. We have not yet had an opportunity of putting it to trial, but when we do so we shall report upon it. Meanwhile we give an engraving of the unique container in which "Calox" is retailed, and may state that stock of it is carried by Messrs. S. Maw, Son & Sons, Aldersgate Street, London, E.C., but for wholesale supplies orders should be addressed to Messrs. McKesson & Robbins, Fulton Street, New York.



### "Essentiel" Bread.

THIS is the name given by Mr. R. O. Bischof, 35 Brooke Street, Holborn, E.C., to a diabetic bread made under Mr. C. Heudebert's patent. The distinctive feature of this bread is that the gluten basis is combined with between 29 and 30 per cent. of albuminous compounds (containing natural phosphates), this adding greatly to the nourishing nature of the bread. It is very palatable, and is specially designed for the dyspeptic and those inclined to obesity, its ready digestibility and the absence of starch or sugar accounting for these advantages. Mr. Bischof also makes diabetic gluten bread, which is remarkably free from starch, and which is as crisp and pleasant to taste as a fresh rusk. Both the breads are suitable for diabetic patients, and they are made in different styles, the "Essentiel" being in cylinders, packed in 1-lb. boxes covered with yellow satin parchment, and the ordinary diabetic bread in rusk-shape, packed in similar boxes

covered with red satin parchment. Mr. Bischof will send a sample box containing portions of each kind to chemists who desire to make themselves better acquainted with the products.

### Exposure Record.

WE briefly mentioned last week that the 1905 edition of the Wellcome Photographic Exposure Record and Diary had reached us. The exposure-calculator has been further simplified, so that a single opening of the book and a turn of the dial of the calculator gives the exposure in seconds for any subject or plate. The Record has several articles on photographic subjects which are bound to interest those for whom the book is produced. The measurement of the book is only 5½ by 3 inches, and notwithstanding a year's blank diary pages the thickness is hardly half an inch. Two editions are printed, for use in Northern and Southern Hemispheres, and there are two styles of binding—in red leather retailing at 1s. 6d., and green art canvas at 1s. Each copy of the Record has with it a coupon entitling the purchaser to a free sample-bottle of one of the numerous tabloid photographic preparations. The coupon has to be sent to Messrs. Burroughs Wellcome & Co., Snow Hill Buildings, E.C., but the photographer has to fill in the name of his dealer.

### Dichroic Ink.

If there is any pleasure in writing, it certainly comes when one dips the pen into the ink-well filled with Draper's "Dichroic" ink and lets it run over the paper in the curves that form these words. The ink flows off the pen at just the proper speed; and the colour, being pleasant to the eye, is against that pessimistic mood which a glaring blue is apt to engender. For book-keepers its utility and permanence have been proved by three decades of use in our counting-house, and the advantage of having an ink that copies well comes home to one when the letter-signing period of the day's work approaches. Messrs. Bewley & Draper, Ltd., Dublin, the makers of the "Dichroic" ink, have now added to their benefactions an ingenious and original pen-filler, which we have had sketched. It is a pipette of about ½ oz. capacity, and 5 in. long from tip to top of the I.R. feat. One may keep this lying on the writing-table without leakage, and when it is emptied it is easily refilled from the ordinary stock-bottle. The "Dichroic" ink is excellent for fountain pens. The filler is not at present obtainable through trade channels, but Messrs. Bewley & Draper will send one, postage paid, to any of our subscribers for 1s. It is the subject of letters patent, its special advantages being that it obviates contamination with dust or sediment by suction, which too often give annoyance in the case of ordinary fillers.



### "Allenburys" Packed Lines.

THE artistic development in the packing of medicinal and toilet preparations is one of the features of twentieth-century progress in pharmacy. Perhaps the last phrase may strike harshly in the minds of some, especially those who regard pharmacy in its strict sense—viz., the art of preparing drugs in the most desirable manner for administration. Yet that is involved in the present note, and the



line of thought is suggested by Professor Oldberg's development of the pharmaceutical curriculum to the study of proprietary galenic products; a series of packed specialties from Messrs. Allen & Hanburys, Ltd., Bethnal Green, E., giving point to the observations. Here we have a new series packed ready for sale, in each case with space for the chemist's own name and address, which is printed in black script. The characteristics of the series are gray cartons with white edges, and buff-coloured lithographed labels artistically printed in black and gold; the name of the article being in script, printed on a slight slant. The get-up is exceedingly effective and so tasteful as to be consistent with the highest-class pharmacy; yet the prices are low. We mention a few (the originals of which we have examined as to quality) :

Malt extract, 1 lb. in screw-top jars in carton, 9s. 3d. per doz.

Ditto with cod-liver oil, 10s. 9d. per doz.

Black-currant cough-balsam ("Phar. Forms," 3) 4 oz., 5s. 9d. per doz.

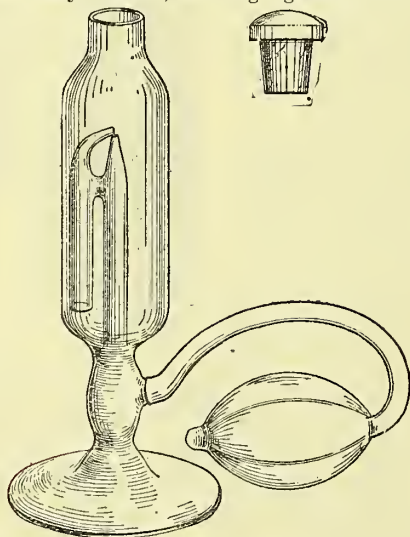
Syrup of figs, 4 oz., 5s. 9d. per doz.

Seidlitz powders, hand weighed (12 in box) 5s. 6d. per doz.

In each case the chemist's own name is printed on three dozen. Section 4 of the company's trade price-list contains illustrations and prices of the whole series, and we recommend chemists to write for a copy of it in order that they may judge for themselves of the utility of the series. The company have, of course, a variety of packings. For example, Household Embrocation is put up in a greenish-blue carton (4-oz. plug stopper bottle 5s. 6d. per dozen), and carbolio tooth-powder is in cerise enamelled tins. Messrs. Allen & Hanburys, besides packing a large variety of compounds prepared from their own formulæ, undertake the preparation of articles made from chemists' own formulæ, packing them in an equally artistic manner.

#### One-Eleven Specialities.

THE smartest thing which Messrs. Parke, Davis & Co., 111 Queen Victoria Street, E.C., have introduced of recent times is the "glaseptic" nebuliser, which we illustrate here. It is made entirely of glass in one piece, except, of course, the pneumatic part, which is of the best indiarubber. Its height is 3½ inches only, and as the diameter of the reservoir is only about ½ inch, it is possible to work with as little as 5 minims of liquid, of which 4 minims is converted into a smoke-like cloud. This is produced by the spray, formed in the ordinary manner, striking against the contracted



orifice of the outer cylinder. The form of the nebuliser enables one to hold the mouth over it (instead of throwing back the head) when a throat-application is wanted. Obviously the apparatus can with ease be thoroughly sterilised. Another new thing is a cold-tablet (ammoniated quinine compound) containing  $\frac{1}{10}$  grain each of capsicum and camphor,  $\frac{1}{4}$  grain of caffeine citrate, and  $\frac{1}{20}$  grain of aloin along with the equivalent of tr. quinine ammon. 5ss. The tablet (chocolate-coated) is put up in bottles of 100. An alkaline representation of the well-known enthyamol is now intro-

duced as "Alkathymol" specially for use by dentists and for throat-affections. Each fluid ounce contains sodium borate 4 grains, sodium bicarbonate 8 grains, sodium chloride 8 grains, sodium sulphate 3 grains, sodium phosphate 1 grain, menthol  $\frac{1}{2}$  grain, thymol  $\frac{1}{4}$  grain, eucalyptol  $\frac{1}{2}$  minim, oil of *Pinus Pumilio*  $\frac{1}{2}$  minim, glycerin 60 minims, and chloretone  $\frac{1}{4}$  grain. This is presented in the form of a clear, pleasant-tasted solution. Another combination for dentists is "Dentalone," a saturated solution of chloretone in a mixture of oils of cloves, gaultheria, and cassia. This has a remarkable effect as an obtundent, not only relieving the pain immediately but acting as a local anæsthetic. The high solubility of chloretone in essential oils should be noted. "Dentalone" is put up in 1-oz. stoppered bottles with a wishish mouth that enables pledgets of cotton to be dipped in. Last, but not least, in this little bunch of novelties is the typhoid agglutometer, which is virtually a vest-pocket edition of Widal's test for diagnosing typhoid fever. It is a cardboard box 4 inches by 3 inches by  $\frac{3}{4}$  inch, containing at one end three tubes of a sterile-suspension of typhoid bacilli and a control-tube, and at the other a dilution-tube, blood-tube, pipette, and half a pen-nib for puncturing the cuticle of the patient so as to get the necessary drop of blood. We may now quote from the firm's statement :

In performing the test with the Typhoid Agglutometer the serum-dilution (obtained by adding two drops of serum to the fluid in the diluting-tube) is distributed in specific quantities to the three tubes of suspension. After a time, when the reaction is positive, floccules appear in one or more of the tubes, depending upon the agglutinating power of the serum tested. A positive reaction is easily detected by comparison with the control. Laboratory experiments have shown this to be equal in delicacy to the former method. The limits of reaction are more distinct than in the old process.

This, it will be seen, obviates the use of the microscope, and enables the physician to decide before leaving the patient's home whether it is or not a case of typhoid fever. If bacteriological diagnosis progresses in this way, man will have much more to thank science for.

#### Aix-la-Chapelle Spring Products.

THE waters of Aix-la-Chapelle are noted among the spas of the Continent in respect to their efficacy in the treatment of scrofulous diseases. The waters appear not to differ in a marked manner from each other, and they are used indifferently "for drinking, bathing, and douching, in cutaneous diseases, stiffness of the joints, paralysis, obstruction of the liver, and syphilis" (Squire, p. 693). The following analyses by Dr. Stahlschmidt, made in 1902, may be quoted :

	Sebastian Sprudel.	Muhlén	Victoria.
Chloride of sodium ...	28.19170	28.37203	27.91295
Bromide of sodium ...	0.01172	0.01690	0.01111
Iodide of sodium ...	0.00253	0.00225	0.00196
Sulphide of sodium ...	—	0.00071	0.01808
Carbonate of soda ...	5.96805	5.97703	6.24246
Sulphate of soda ...	2.98000	3.08191	2.81700
Sulphate of potash ...	1.67280	1.68475	1.66481
Carbonate of lime ...	1.33750	1.85779	1.43905
Carbonate of magnesia ...	0.28476	0.27356	0.28816
Sulphate of protoxide of iron ...	0.00380	0.00353	0.01838
Silicic acid ...	0.68820	0.73802	0.66286
Organic matter ...	0.02450	0.02650	0.01603
Carbonate of lithia ...	0.02825	0.09645	0.03479
Carbonate of strontia ...	0.00273	0.00559	0.03444
Carbonate of copper ...	—	0.00130	0.00110
Manganous carbonate ...	0.00301	0.00295	0.00522
Phosphate of alumina ...	—	0.00180	—
Ammonium carbonate ...	0.07584	0.07138	0.06280
Alumina ...	0.00470	—	0.00785
Calcium arsenate ...	—	0.00034	—

Total per 10,000 parts 41.27989 42.21479 40.63905

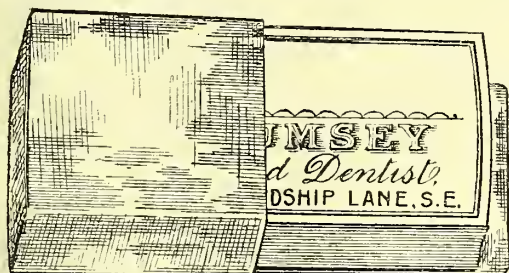
Recent investigation has proved that the waters possess little radio-active power, and this probably accounts for the fact, which has been demonstrated, that the "cure" at Aix-la-Chapelle depends not upon the climatic conditions and the regulated life, but upon the salts of the waters. The latest evidence of this is the establishment of baths in the West-end of London, where syphilitic patients have been successfully treated. We have had a conversation with a medical man on the subject, and he tells us that mercurial inunctions in combination with the Aix water baths not



only effect a cure more rapidly than by the ordinary treatment, but that mercurialism is not produced. The matter is now receiving the attention of practitioners, who naturally prefer to have their patients treated at home instead of sending them to Aix-la-Chapelle. The salts and other products containing them are now put on our market by the Aix-la-Chapelle Natural Spring Products Co., Ltd., 24-26 Basinghall Street, London, E.C. There are eight distinct articles—viz., Aix-la-Chapelle drinking-salts, pastilles, bath-salts, medicated soap, toilet-soap, shaving-stick, tooth-paste, and natural spring-water ("Sebastianaris").

#### The Curling Label.

is one of the most annoying inconveniences in the chemist's shop, and many are the devices to minimise it. This latest idea is one of the best:



It is the anti-curling label-holder, devised by Mr. W. C. Bailey, the South Coast representative of Messrs. James Townsend & Sons, medical-label printers, Exeter and London. It is made of tinplate of the size shown for slip-labels, or any other sizes that may be required. We have kept one filled with labels in a very warm room for a day, and the bundle is still quite tidy. The slip-label size figured costs 18s. per gross.

#### Charterhouse Sundries.

MESSRS. FRANCIS NEWBERRY & SONS, LTD., 27 & 28 Charterhouse Square, London, W.C., issue a special price-list of winter and other druggists' sundries. It is a good reminder to chemists at home of things they will find saleable just now, and even although those on the other side of the Line may not find bronchitis-kettles and camphor ice exactly seasonable, they will find in it much to interest. A good line for this time of year is the "Charterhouse" body-belt, made in four qualities, each in several styles as to colour, and each belt mounted on a card for show. The prices range from 18s. to 28s. a dozen, and the belts should sell at a handsome profit, as they are well made and finished, and quite attractive. They are double-buckled and the buckles do not chafe the skin. Elsewhere we refer to Messrs. W. R. Warner & Co.'s list of manufactures, but here we may note that we have received specimens of the packages in which they put up pills and tablets for retailing, with or without the name and address of the retailer, there being either nothing dutiable on the labels or full disclosure to meet Exemption 3. The following notes show the styles:

**Tablets.**—"Triple Bromides," "Lightning Cold-cure" (chocolate-coated), and "Digestive" (chocolate-coated), each in vest-pocket screw-capped bottle.

**Lithia Lentiforms**, 5 grains in each, effervescent; tube and outer carton.

**Brain and Nerve Tablets** (pink coated), "Backache and Kidney Pills" and "Stomach and Liver Beans," each in ½-oz. tube phials, screw-capped and wrapped.

**Quinine Pills**, twelve 2-grain sugar-coated in a slide box.

These are all neat and handy packages, and the retailer's own name can be printed on the labels.

#### In Brief.

F. WAGUET's filtering papers are now stocked by Messrs. Felton & Crepin, 38 Trinity Square, London, E.C., who have obtained the sole agency for the United Kingdom and colonies.

Some time ago we mentioned that Mr. G. H. Zeal, 82 Turnmill Street, E.C., had registered an improvement for reading with ease the magnifying stem of clinical thermometers. He engraves a square mark over the stem. As imitations of this are now appearing, Mr. Zeal calls attention to the fact that all his thermometers have the registered number (391,292) under the mark.

## Festivities.

### Dining Cricketers.

THE cricket club attached to the business-house of Messrs. Ferris & Co., Ltd., wholesale and retail chemists and druggists, Bristol, had their annual dinner last week, under the presidency of Mr. H. H. Townsend. Out of sixteen matches played twelve were won and four lost, two defeats being by the narrow margins of one and four runs respectively. This was reported to the company, and congratulations were offered on the gratifying record achieved. A most enjoyable evening was spent.

### A Wolverhampton Social.

THE annual social gathering of the employés of Martyn's, Ltd., Drug-stores took place on January 19 at the Town Hall Restaurant, Wolverhampton. Twenty-six ladies and gentlemen sat down to an excellent repast, after which the evening was devoted to games and music. Songs were contributed by Miss H. Morris, and Messrs. Hale, Hullett, and Griffiths; while Misses Mees, Anthony, and Leech proved themselves able accompanists. Mr. Harton contributed selections on the gramophone, and the singing of "Auld Lang Syne" concluded a successful social meeting.

### Western Smokers.

ANOTHER of the delightful series of *recherché* smoking-concerts instituted by the members of the Western Chemists' Association of London was held at the Norfolk Square Hotel, London Street, Paddington, W., on January 25. Mr. Frank A. Rogers, the President, genially ordered the proceedings, and a feast of mirth and melody was provided by Messrs. Charles Lindon, Frank Caron, Frank Martin, and Walter Howard. Mr. Frank Martin is a comedian and *raconteur* of more than ordinary merit, and Mr. Walter Howard's banjo solos were much appreciated. The solo pianist and accompanist was Mr. Lindon.

### Spectacle-makers' Dinner.

THE annual livery dinner of the Spectacle-makers' Company was held on January 19, the Master (the Hon. Alban Gibbs, M.P.) in the chair. The interest in the dinner from the chemist-optician's point of view was centred in the reply which the Master gave to the toast of "The Master and Company," proposed by Professor Silvanus Thompson. In the course of his reply, the Master thanked Professor Silvanus Thompson and the medical men who have associated themselves with the Company's examinations. He feared that they could not blink the fact that a considerable section of medical men have thought it their duty to oppose what the opticians, after a most deliberate and careful inquiry, felt it their duty to undertake. A year has passed since the announcement was made that for the future scientific sight-testing would form part of the education of an optician, and would be included in the syllabus of the Spectacle-makers' Company's examinations. The extension of the scheme had met with considerable success. No fewer than 160 opticians already holding a diploma in general optics have been examined, and of these 106 gained the Company's diploma certifying their proficiency in sight-testing. The co-operation of the Company has been invited to two other movements in the optical trade of much interest. The first is the projected optical conference, which is to be held this year in London, under the presidency of Dr. Glazebrook, at which it is proposed to inaugurate an exhibition of optical and other scientific apparatus. The other movement had its origin from certain legislative proposals which are contemplated. The opticians, rightly or wrongly, think that those proposals are directed against the practice of sight-testing and spectacle-fitting on the part of any other than medical men, and the opticians contemplate taking certain steps to vindicate their prescriptive rights and privileges. He hoped that whatever might be done by the trade as a whole in that respect would only be done after due deliberation of the various complicated issues that would arise. When the Bill comes into Parliament—if ever it does come—it will receive his careful consideration. If it be objectionable they will know how to deal with it. His own action has been limited to getting eighteen freemen and liverymen of the Guild to be members of a General Board of Opticians



who are to discuss the subject without in any way pledging the Company in regard to the conclusion at which they may arrive.

### Dartford and Dayton.

WHEN the representatives of two firms pre-eminently interested in "welfare" work meet, the event is certain to be an interesting one. This was the case on Thursday afternoon, January 19, when about fifty delegates of the National Cash-register Co. motored from London to Dartford on a visit to the Wellcome Club and Institute. They arrived at Messrs. Burroughs Wellcome & Co.'s works about three o'clock, where they were shown over the "Kepler" and "Tabloid" buildings, and a seventy-seconds turn-out by the staff fire-brigade. They then proceeded to the Club, and after watching a hockey-match between teams of the London and Dartford employés (won by Dartford by five goals to two), afternoon tea was served in the library, and the speech-making commenced. In Mr. Wellcome's absence in the United States, Mr. R. Clay Sudlow welcomed the delegates, and then called upon Mr. Aubrey T. Hill, the works-manager, to explain to the visitors what Burroughs Wellcome & Co. are doing in the way of "welfare" work. Mr. Hill, in a concise and well-delivered speech, briefly described the "welfare" features of the Club and works. Mr. Chalmers, the third man in the National Cash-register Co. (to which position he has risen from the bottom of the ladder while still a young man), effectively replied. He summed up "welfare" work as Capital and Labour working for each other instead of against each other, and divided the work at Dayton into three classes—the Company's Welfare Department, the Men's Welfare League, and the Women's Century Club. The company is too busy to run all these organisations, so it turns over the second to the men and the third to the women, to be run entirely by them for the benefit of each other. Burroughs Wellcome & Co., he said, do many things the N.C.R. do, and in some directions more. For example, they have not such elaborate grounds at Dayton, nor have they a library, but the company is erecting a new "welfare" building with a library, games-room, etc., and a dining-room to seat 4,000. After the speeches the visitors went over the Institute buildings, and at 6.30 assembled in the tastefully decorated hall of the Staff Club-house for dinner. A novel feature of the dinner was the singing, led by the orchestra, of five or six of the different National Anthems of the countries represented among the delegates. Another novelty was the presentation to each delegate of a silver-mounted leather medicine-case for the pocket containing thirteen compressed drugs in "tabloid" form, and having the recipient's name in gilt outside. During the dinner telegrams and cablegrams wishing the gathering success were received from Sydney, Cape Town, Calcutta, Canada, Vienna, Paris, Berlin, Milan, and Brussels. The Chairman (Mr. R. Clay Sudlow) proposed the toasts of "The King" and "The President of the United States," which were duly honoured. Mr. Sudlow also proposed the toast of "The National Cash-register Co.," which was received with applause and feelingly replied to by the vice-president of the company (Mr. Robert Patterson), Mr. G. H. Wark (Continental manager), Mr. D. W. Saxe (British manager), and Mr. E. C. Morse (foreign manager at Dayton). The last toast—that of "Messrs. Burroughs Wellcome & Co."—was proposed by Mr. M. Martin Kallmann, and was acknowledged by the Chairman in a humorous speech. The company then broke up for Mr. E. S. Thomas's lecture in the gymnasium on "N.C.R. Welfare Work," which was on the same lines as that given in the Hôtel Cecil last week (*C. & D.*, January 21, p. 78).

### London College of Pharmacy.

THE annual dinner and distribution of medals and certificates to the students of the London College of Chemistry and Pharmacy took place in the Venetian Chamber of the Holborn Restaurant on Friday evening, January 20. About 160 past and present students and friends of Mr. H. Wootton (the Principal) were present, one of whom, Lieutenant-Colonel A. Rotton, J.P., L.C.C., presided. After dinner and the loyal toasts the Chairman proposed "The London College," remarking that he had had the pleasure of visiting the Clapham Road institution, the inside of

which he likened to a beehive. The gallant officer (who, we understand, passed through the Indian Mutiny) described the treatment accorded to the soldier patients in the hospitals in India. One medical officer, he remembered, was perfectly impartial in his treatment of patients—he prescribed a large bottle of black draught all round to several hundreds of them. (Laughter.) On another occasion, he said, there was a private in his regiment who was supposed to have been "stone deaf" for years, and in consequence he had an easy time of it, mostly in the infirmary. A change of medical officers took place, however, and the newcomer, having reason to suspect the man of malingering, called the hospital attendant to the bedside and said, "Give this man a chop and a pint of beer every day—he is very bad." The doctor afterwards told the attendant to omit the beer; and when the chop was brought to his bedside the deaf man said, "Where's my beer?" (Loud laughter.) Continuing, the Chairman hoped that the students would by diligence and good work arrive at the highest positions in the profession of which they were members. This they could not fail to do if they daily followed the instruction given at the London College, and in wishing every prosperity to that institution he asked them to couple with it the name of Mr. Wootton. (Loud cheers.)

### THE COLLEGE YEAR.

Mr. Wootton, whose rising was the signal for loud and prolonged applause, heartily thanked the Chairman. He was gratified to know that many old boys were present, as it showed the genuine interest they took in their College. He had a number of letters from others who were unable to be present, including several from the Riviera. One writer enclosed 10s. for the football fund, saying he was proud of their record. (Loud cheers.) Speaking of the work of the College, Mr. Wootton said that at last year's dinner he was enabled to state they had beaten all previous records at the examinations. Now they had again beaten their previous best, both in regard to passes in the Major and Minor. The actual figures were: Major, 13 (previous record 10); Minor, 88 (previous record 79). On three occasions London College men comprised half of the total of Major passes. They did not, however, manufacture pharmacists like so many eight-guinea bicycles. Each student's success was the result of individual effort and hard work. In the domain of sport the College had so far an unbeaten record in League football matches, and he hoped that next year they would have the pleasure of showing their Chairman the challenge cup. (Loud cheers.) "The Staff" was proposed by Mr. Davis, who referred to the able and conscientious way in which they carried out their duties. Mr. A. Kirkland, who was vociferously cheered on rising to reply, said the successful results at the examinations were due rather to the system adopted than to any individual member of the staff. At football they had played nine matches, of which they had won five, lost three, and drawn one. Of goals they had scored thirty-three, as against thirteen; and as regards the Inter-Pharmacy Football League, the London College held the first position, not having lost a single match. (Cheers.) Mr. G. G. Watts proposed "The Students," to which Mr. G. Wiseman replied, after which the Chairman distributed the medals and certificates to the successful students, the following being the medallists:

*Silver Medals.*—Chemistry and physics, William M. Tims and Walter W. Willecock; botany, W. Lloyd Francis and Alfred J. Dodd; materia medica, William G. Bodley and James H. Stretton; pharmacy, Harry H. Righton and James H. Stretton.

*Bronze Medals.*—Chemistry and physics, David A. Sturton and Alfred J. Dodd; botany, William M. Tims and Ernest B. Henderson; materia medica, Thomas K. Hughes and Arthur H. Penney; pharmacy, David A. Sturton and Arthur H. Penney.

During the evening the "Court Pierrots" gave an excellent musical entertainment of a humorous character. The most mirth-provoking items proved to be two musical recitations, "The Mother and her Child" and "Patent-medicine Advertisements." At the close a collection (amounting to 6l. 12s.) was taken on behalf of the Football Club, and a most enjoyable evening concluded with "Auld Lang Syne."

### A Leicester Dinner.

THE annual dinner of the Leicester and Leicestershire Chemists' Association was held in the Grand Hotel, Leicester,



on January 19, the President of the Association (Mr. W. Thirlby) in the chair. There were about seventy present, including Mr. R. A. Robinson (President of the Pharmaceutical Society), eight local medical men, three dozen members of the Association, and about two dozen representatives of wholesale houses. Included in the last-named category were Messrs. Marsh (Allen & Hanburys, Ltd.), C. T. Bennett (Wright, Layman & Umney, Ltd.), Macbride (Burroughs Wellcome & Co.), Ashton (Idris & Co., Ltd.), Royle (Ingram & Royle), Dansie (Crown Perfumery Co.), and representatives of Thomas Christy & Co., S. Maw, Son & Sons, Parke, Davis & Co., Raines & Co., Ayrton, Saunders & Kemp, Ltd., Elliman, Sons & Co., Armour & Co., Wyleys, Ltd., F. Newbery & Sons, Ltd., Harrison & Waide, Hirst, Brooke & Hirst, E. H. Butler & Son, Robinson & Sons, Ltd., and the Erasmic Co., Ltd. The dinner was an excellent one and well served. The toast-list was rather lengthy, but all went well, and the impromptu speeches were among the happiest of the evening. The loyal toasts having been honoured, the Chairman gave "The Pharmaceutical Society." He welcomed the President of the Society among them, saying it was the first time the Association had been so honoured.

#### MORE ABOUT COMPANY LEGISLATION.

Mr. Robinson, in his reply, congratulated the Association on the presence of so many medical men. Their presence was an earnest, he said, of the cordial relations that exist in Leicester (and which ought to exist everywhere) between pharmacists and physicians. He (the President) had that day had a conference with the Chairman of the Parliamentary Committee and the Secretary of the Medico-Political Committee of the British Medical Association regarding the Bill recently promulgated by that Association. The conclusion came to by the members of the conference was that there was no great diversity of opinion between medical men respecting the position of pharmacy and pharmacists as regarded the aspirations of medical men. After touching upon the new scheme of organisation which the Society was attempting throughout the country, Mr. Robinson went on to state that the net gain in membership of the Society during the past year was 251. With reference to the new Pharmacy Bill, he traced the history of the Pharmacy Act and the effect of the House of Lords' decision regarding the impersonality of Corporations. He knew that the General Medical Council as well as the British Medical Association was disturbed about a similar danger, and he was sure medical men sympathised with pharmacists in their efforts to obtain legislative redress; and he thought when medical men went to Parliament with a Bill to prevent company trading in medicine, then was the time for pharmacists to press their claims likewise. It was in the public interest that medical men alone should prescribe and it was also in the public interest that chemists alone should dispense. Mr. Robinson then went on to deal with Clause 7, and explained the new clause which the Council had drafted in substitution of the offending clause. He personally had had the assurance of the head of the Government Department with which they were concerned that pharmacists in submitting the new clause were adopting a more reasonable attitude. He had also been assured that Government had no desire to see any unqualified person trade as a chemist. He had been assured that they had no personal interest in the matter whatever: all they wanted was the public safeguarded. Referring, in conclusion, to the proposed curriculum embodied in the Bill, Mr. Robinson said on this subject that he was again told at Whitehall that the time had come for the Society to adopt a proper system of study for its students. "The Medical Profession and Visitors" was proposed in a humorous speech by Mr. G. J. B. Woolley, and replied to by Dr. Pope, Dr. Franklin, Mr. Royle, and Mr. Frost. The medical speakers professed themselves in entire accord with the aims of pharmacists as enunciated by Mr. Robinson. "The Leicester and Leicestershire Chemists' Association and Kindred Associations" was proposed by Dr. Pratt, who paid tribute to the loyal way in which pharmacists dispensed physicians' prescriptions and the discreet manner in which clerical errors in prescriptions were brought to the notice of prescribers. He added a desire that phar-

macists would make a practice of stamping all prescriptions on the back. Mr. Joseph Young made a witty reply, in the course of which he suggested, *à propos* of Dr. Pratt's remark, that doctors should give up using a small octavo and take to quartos for their prescription-forms, in order to give the pharmacist a chance of putting his name and address where the law compelled him to do it—on the front of the prescription. An enthusiastic vote of thanks to Mr. Thirlby for his admirable conduct as Chairman terminated the serious business of the evening. A very clever musical entertainment was given during the evening by Messrs. Langford and Goddard. One of Mr. Goddard's songs was "Ether-eal," by "W. H. A.," which appeared in THE CHEMIST AND DRUGGIST Supplement of December 24, 1904.

## Medical Gleanings.

### BONE-PLUGGING.

THE operation of plugging bone cavities, which is now being practised in cases of osteomyelitic affections and tuberculous disease of the bones, is one in which an iodoform cream is used. The cavity is dried by means of hot air after using a 1 per cent. solution of formalin. The rules for stopping teeth apply in bone plugging, diseased bone being removed with suitable instruments. The plugging material consists of sixty parts of the finest powdered iodoform and forty parts of spermaceti and oil of sesame—a compound which is stiff at the ordinary temperature of a room, but fluid at 50° C. The warmed material is poured in and sets *in situ* in a few minutes. The plugging has only a temporary sojourn in the cavity, as it is finally expelled by the formation of new connective tissue, or it may be absorbed by the system.

### IODIC ACID AND IODATES.

IN the "Lancet" of January 21, Dr. William Mackie gives an account of his clinical experiences of iodic acid and the iodates. The following summary contains the facts of greatest interest to chemists:

*Iodic Acid* is a remarkable deodorant and preservative even when diluted to the extent of a 1-in-2,500 solution. It is employed in ozæna, for deodorising offensive urine, as an irrigant in empyema (strength 1 in 500) and for leg-ulcers, as a mouth-wash—*e.g.*, in inoperable epithelioma—and as a throat-swabbing in diphtheria. It was found very useful in a case of extensive burning (1-in-500 solution). Internally a drachm of a 1-in-100 solution, well diluted, has been given in gastro-intestinal sepsis. It has further proved of value administered internally, in typhoid fever. The salt principally employed up to the present is calcium iodate.

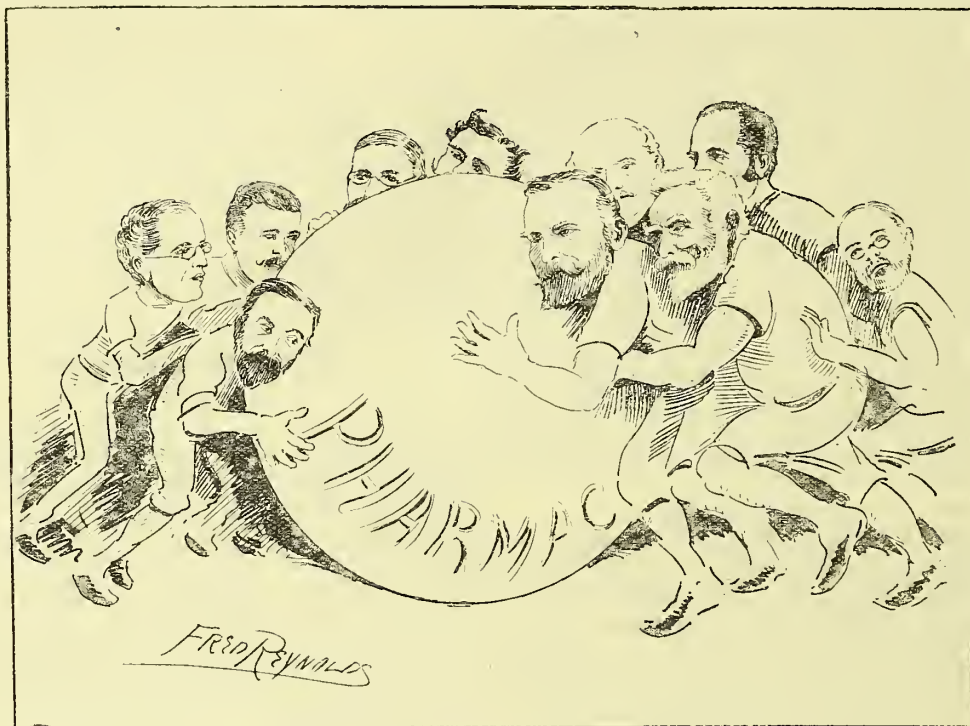
*Calcium Iodate* is particularly useful as a dusting-powder. An ointment containing 10 to 20 grains to the ounce of hydrocarbon base is valuable. A lotion is employed in septic and suppurating wounds, and a gauze (3-per-cent. strength) may be used for the same purpose. Healing ensues with the production of a dry scab. A warm saturated solution is used as a vaginal douche or bladder-irrigant. This iodate is eminently efficient as a mouth-wash or gargle. There is a field of usefulness for it in dentistry—*e.g.*, in pyorrhœa, alveolaris, etc. An ointment, 10 grains to the ounce, has been found to be a veritable specific in various forms of eczema. A solution is further useful as an irrigant in otorrhœa. Hypodermic injections of from  $\frac{1}{2}$  to 2 dr. of an emulsion of 3 dr. of the iodate in 1 oz. of glycerin have been used in tuberculous joints.

*Mercuric Iodate* contains 46 per cent. of available iodine. As a general antiseptic it is probably more efficient than either mercuric perchloride or biniodide. With the addition of sodium chloride it is claimed to be soluble to the extent of 2 per cent. in water. It has the scientific advantage of attacking disease organisms with both its component ions, and it contains only half as much mercury as the perchloride. Furthermore, it has been found to corrode instruments less than the salts mentioned. In a pronounced sycois of hairy parts of the face an ointment containing 20 grains to the ounce produced an effectual cure.

*Bismuth Subiodate* is in the form of a fine white powder. It does not irritate the part to which it is applied. It contains 48 per cent. of available iodine. It has been used in lupus in powder form and as ointment (20 grains to the ounce), and in scrofulous glands as a dusting-powder.

*Zinc Iodate* contains 61 per cent. of available iodine. It is soluble about 1 in 50. It is stronger than the calcium iodate, and is used for similar purposes.





### THE CHEMISTS' BALL.

(As Played by Pushful Men.)

THE annual at the Métropole is over,  
And pharmacists were never more austere,  
But Reynolds with his pretty wit in clover,  
Has dreamt the dream that is depicted here.  
He pictures us some pharmaceutical cogers  
Engaging in a push-ball-istic fray,  
And we note the ready Carteghe, Hills, and Rogers,  
And this is what we think we hear them say—

*"Pharmacutists! gather in from everywhere,  
Do not shed upon us such a cold, cold douche;  
Help us just to start the Ball and with our humours  
bear:*

*Set the Ball a-rolling, and we'll push-push-push."*

Responding to the call of Richard (junior),  
Came they from the North and from the West;  
"Pharmacy's performance ne'er was punier,"  
Grumble the Disgruntled; but the Best—  
Or, at least, the Betters—all were present  
Tripping on their light fantastic toes

(Barristers saturnine looking pleasant),  
And above the throng the chorus rose—

*"Help us bury Jesse 'neath the big, big Ball;  
(Marvelling like Moses at the Burning Bush:)  
Chemists come and back us now—really that is all:  
Set the Ball a-rolling, and we'll push-push-push."*

Hearken to the word of Richard (Senior),  
Note the smiling face of Lloyd Howard,  
See the other Richard (—measure linear  
Slightly less than Orator's—) embowered  
In his Bloomsbury garden snug and cosy,  
Heedless of the slaving chemist's ills,  
Looking out through spectacles so rosy,  
Singing in his gay harmonious trills—

*"Pharmacists! I'm going on the org-an-ise  
Deadly bullet arguments fill my cartouche,  
Better to surrender now, if you're really wise.  
Set the Ball a-rolling, and—perhaps—we'll push."*

### ASSOCIATION BALLAD.

#### THE PURPOSE.

*The men, their aims, their daily irk;  
Their troubles, trials, thoughts, and views  
On things politic, foes that lurk  
In friendly guise, but treach'rous work—  
These be the burden of our Muse.*

#### LV.—NORTHWICH.

BRINY town upon the Weaver,  
Watching fleeting hours go by,  
Heeds not worldly fret or fever,  
Sticks to salt and alkali.  
Staid old town in famous Cheshire,  
Linked in calm fraternal bond,  
Mainly ekes out life and leisure,  
By the help of Brunner-Mond.  
Pharmacists there are in plenty,  
Smoothing places that are rough;  
When the Stranger came and went he  
Ne'er forgot the gentle Clough.

Stranger sought Association,  
But alas! could only find,  
After close investigation,  
Meetings few of chemist kind.  
Humphreys still the secretairy,  
Anxious for the chemists' good,  
Seeks the wand of winsome fairy;  
Sympathy receives from Wood.  
Light the pharmaceutical beacon!  
Northwich! rise for Pharmacy!  
Let us hear the voice of Deakin  
From his Castle send out Lee.



## Observations and Reflections.

By XRAYSER.

### The Cod-liver Oil Prosecutions

have directed prominent attention to the serious injustice which is associated with the administration of the Sale of Food and Drugs Acts. The inequity of requiring innocent tradesmen to pay for the education of magistrates and analysts, and for the discussion of intricate points of law, with the alternative of an undeserved conviction, is manifest; and yet everybody takes it as a matter of the most ordinary course. "We think it was a proper case for the Council to have brought as a public duty," was the smug reply of the Kensington Bench to the defendant's application for costs, just when the evidence had proved that it was not a proper case to have raised. It is as certain as anything well can be that the whole row of defendants would have been convicted, fined, and probably solemnly lectured, if it had not been for the lucky chance that on this occasion it suited the purpose of the Wholesale Drug Club to institute a thorough and costly defence. What is this but another way of saying that justice is a luxury reserved for those able and willing to pay for it? It is to be hoped that Mr. Umney's urgent plea to the drug-trade to treat this matter as of

### Pressing and Serious Import

will not be disregarded. The recent prosecutions furnish as effective an illustration as any likely to offer, and something better should be obtained from the expenditure of 300*l.* than the mere dismissal of the summonses. A remark in the *C. & D.* leader last week, alleging that "the authorities, from the Local Government Board downwards, have very frequently concentrated their efforts to securing convictions under the Acts," indicates exactly the position to be attacked. It is a fact, and not a creditable one, that the L.G.B. shows itself by its reports as monotonously urgent for convictions as if it were a merchant pressing his agents for orders. Nor has it ever, so far as I can remember, suggested the necessity for caution in proceedings which jeopardise the reputation of mere taxpayers. What, then, is wanted is to insist, and to persuade the L.G.B. also to insist by a circular letter to all its subordinates, that the public analysts, who are necessarily the scientific advisers of the Borough Councils, shall recognise that it is as much their function to protect traders from unjust prosecutions as it is to protect the public from fraudulent traders. In these cod-liver oil cases, for example, the public analyst, Dr. Rideal, of course knew that doubts had been cast by eminent authorities on the validity of the test on which he based his certificate. He must have known that the leading authority on oils and fats had expressly challenged it. Obviously it was his duty to have placed this information at the service of his Council. He might have added, if he liked, that he disagreed with Dr. Lewkowitsch, and have left the Council to choose its authority. That would have been a fair report and nothing more. It would have been such a report as was contemplated by the Legislature, and on such a certificate there would have been no prosecution. Similar comments apply with equal force to the certificate given by the Inland Revenue chemists, who ought to be asked for an explanation of the inadequate, and therefore misleading, certificate which they gave.

### The New Zealand Decree

concerning proprietary medicines has been scotched, but apparently not killed, by the trade deputation which waited upon the Minister of Public

Health at Dunedin. The deputation was too considerate towards the Minister. They told him that in Germany the formula of a proprietary medicine has to be lodged with the Government before the compound can be sold. Sir J. G. Ward jumped at this easy way of climbing down from an untenable position, and proposes to adopt the method suggested to him, substituting his medical adviser for the Emperor William. I do not think the information was correct. The Health Departments of some of the German States are very vigorous in publishing analyses of popular proprietaries, and they could hardly take this course if the secrets had already been confided to them. There is a law in France requiring inventors of secret medicines to submit their formulæ to the Academy of Medicine, but all sorts of secret medicines are sold in France, even English "patents," and the august sanction of the Academy, if actually necessary, is met somehow. I can scarcely suppose that either German or French or New Zealand trade will tempt our great discoverers to risk the safety of the public by entrusting their sacred secrets to officials who might at some future time endanger precious lives by venturing to compound the products with unskilled hands.

### The Straits Settlements,

whence the latest pharmaceutical legislation is reported, are among the most interesting and prosperous of the British possessions. One curious thing about them is that we came by them all, I believe, honestly, and without bloodshed. We bought the island of Singapore about a hundred years ago for 13,500*l.*, and an annuity to some old chief or king who claimed some sort of right over it. Penang was given by an Eastern monarch to a British captain as a marriage-dowry with his daughter. The captain exchanged it—for a consideration—with the East India Company. There was some fighting at one time with the Dutch about Malacca, but the final cession was made by a friendly treaty. And British rule has converted those forests and swamps of the Malay peninsula into happy and flourishing centres of commerce. Singapore was occupied by 150 wretched Malays when England took it over; it is now one of the great seaports of the world, the London of the East, it is called. The whole European population of the Settlements does not much exceed 5,000, and these are surrounded by 500,000 Chinese, Malays, Hindoos, Eurasians, Arabs, and other nationalities whose names are unfamiliar to all but experts. Religions, languages, customs, costumes, and interests of the most varying kinds jostle each other in Singapore and Penang in picturesque confusion, but wise, non-interfering government and the sweet influences of abundant trade keep everybody peaceful and contented. The chemists just now have a trifling grievance about their title, but they do not excite themselves about it, and doubtless it will soon be put right. In the Poisons Schedule quoted last week, which has been drafted for the Colony, it may be noticed that Parts 1 and 2 and vermin-killers are avoided; the Straits do not want litigious persons like Mr. Leggett there. The provision in the Medical Ordinance ensuring equal rights to all ancient Indian, Chinese, and other Asiatic systems of therapeutics is similarly characteristic.

### Don't Wipe the Dispensing-scale Pans

with your apron, is one of the pieces of advice given to Edinburgh assistants by Mr. C. F. Henry in his "Minor Notes on Dispensing." I wore the apron in the first few years of my servitude, and I have no doubt I used it for wiping everything. But is it the fact that the apron still appears in Edinburgh pharmacies? Possibly it lingers in some parts of England, but it is many a year since I saw it. Doublet and hose would not be more surprising than the apron in a London chemist's shop. It may well be, however, that the apron is the symbol if not the inspirer of true pharmacy. Four truly pharmaceutical papers and discussions were reported last week from the Associations, and they were all read in Edinburgh.



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## Editorial Comments.

### A Word in Season.

THIS Winter Issue of THE CHEMIST AND DRUGGIST carries with it a good deal of evidence of that commercial confidence which testifies to a revival in trade. Rarely have we been entrusted with the distribution to chemists at home and abroad of so many artistic and business-like insets as those inserted in this issue. These are fully described on another page, and it is unnecessary to repeat here what is said of them, except to note the fact, which is useful to business men in all departments of the trade,



that it usually pays to respond to enterprise directed to bring them custom. This also should be said of those who use this Winter Issue in other manners for promoting business. It would be presumptuous for us to regard this support as anything else than reliance on the fact that the readers of *THE CHEMIST AND DRUGGIST* are both sufficiently numerous and responsive to justify advertisers addressing them. We do not reckon on sentiment in this matter. The business of a trade journal does not differ essentially from any other kind of business: its success depends upon influence and upon its meeting the needs of subscribers, although there are other essentials which have been a lodestone to *THE CHEMIST AND DRUGGIST* since its inception. We gratefully acknowledge the confidence we have received from subscribers at home and abroad, and the support which they continue to give to the firms who week by week address them through our advertisement-pages. So far as the drug-trade is concerned, we think we may say without presumption that *THE CHEMIST AND DRUGGIST* has been the means of opening up new fields of business to manufacturers and wholesalers which were not dreamt of fifty years ago. We have always recognised the fact that London is not merely the capital of England, but the centre of the British Empire, and have not hesitated, while extending our influence at home to the honourable position which we occupy as an independent journal, to knit together as far as it is possible in this manner our *confrères* in the business the wide world over. Turning now to the contents of this issue which could not be summarised on the first page, we may classify the special articles into groups.

#### "Shop"

may have the first place, and the most important contribution in this section is that of Mr. Freshfield Reynolds, of Gloucester, on "The Ideal Pharmacy." Some time ago Mr. Reynolds gave the Cheltenham Chemists' Association a little talk on this subject, and here it is, elaborated and illustrated, on p. 137—the thoughts of a man who has spent nearly half a century in pharmacy. Its value lies in the fact that we have here matured ideas on fittings and pharmaceutical appliances, some opinions also on the conduct of the business, on the ethics of the craft, and on the possibilities of pharmacy, which it is well to place on record, for the veterans of the trade nowadays can counsel their younger brethren wisely. Next may be mentioned Mr. Sampson's suggested improvements on a few of the sundries which chemists handle (see p. 153), a practical article which may lead to new business and bring other thoughts of an allied nature to us for the common good. In the article on showcards for proprietaries (p. 148) we have a solution of a problem that worries many chemists of individualistic tendencies, who have felt that they cannot do their own efforts in speciality-production adequate justice in display; but in the article referred to it is told how good window-showcards can be produced, and the window made attractive to potential customers. In this section we might also include the notes on novelties and our Town Traveller's observations.

#### Travel

is not generally reckoned as a chemist's indulgence. The chemist is supposed to be a much cribbed, cabined, and confined man; but our contributions belie the supposition to the extent that we have found in this section the largest group for selection, more being held over than are printed. Mr. J. W. White, F.L.S., of Clifton, contributes a charming article on Catalonia, which reveals the possibilities of an average holiday in visiting a little-known spot of Europe, where he found a great deal of botanic

interest and much historic lore. This article begins on p. 141. At present, when so many English chemists' assistants are in the South of Europe, the article by Mr. E. M. Mellor, of San Remo, on the olive-oil industry of the Italian Riviera (p. 146) exemplifies what may be got out of a day's intelligent observation with eye and camera. Here a knowledge of Italian displays itself in the authentic particulars of an industry about which we cannot know too much. Mr. W. Bousfield, of Hull, who gave us in 1903 his experience of a visit to the cod-fisheries in Norway, has since spent another holiday among the industrious people of that ancient but progressive country, and on this occasion gives his impressions of Norwegian pharmacy (p. 158), showing, among other things, that its exclusiveness is somewhat irksome. Mr. Ladakis, one of the staff of the Pharmacy School of the Syrian Protestant College at Beyrout, tells about pharmacy in that international part of the Ottoman Empire (p. 155), where pharmacy students whose native tongue is Arabic learn the secrets of their craft in English or French. China next has attention in another illustrated article showing not only how English and German chemists have built up good business in that strange and huge country, but also how some of the Chinese themselves are following on European lines. The article (p. 151) further deals with the qualifications of Chinese doctors and druggists. Last in this group may be placed the interview with Dr. Schott, of Bad Nauheim—a brief record by a traveller of the manner of the man who has carried to success an innovation in the treatment of dire complaints.

#### The Scientific and Practical

are here in no lack. Messrs. Umney and Bennett contribute a useful epitome (p. 129) of the factors for cod-liver oil, which they collated or determined for the purpose of the recent prosecution. Mr. W. Mair tells (p. 171) of an innovation by Professor Oldberg, of Chicago, in the education of young chemists. This is to instruct them in the appearance and properties of the numerous medicinal and other specialities which are on the American market. Professor Oldberg was the man who first gave practical effect to the idea that apprenticeship in retail pharmacy is no longer adequate, and should be replaced by a three-years' curriculum in a college before entering the shop. Mr. E. J. Parry, in a note on p. 137, shows that lemongrass oil which is adulterated with citronella oil is now coming into this country. Some interesting *materia medica* notes will be found on p. 163; that especially on the preparation of pepper is valuable as being an account of the observations of a subscriber who has recently seen the process carried out. We also note the able article by Mr. T. F. Harvey on arsenic-analysis by the Gutzeit test (p. 168), in which it is shown how arsenic-contamination of medicinal chemicals may be accurately determined. This paper is illustrated with a sketch of the apparatus and a diagram of the spot tests. Dr. W. H. Martindale's paper on the metric system (p. 149) is a commercial plea as well as a scientific exposition. The issue also includes several matters of antiquarian interest.

Besides these articles there is much in this Winter Issue which will amuse and instruct; and we trust our readers will find, when they apply what is appropriate to their business methods, that they can do so with profit to themselves and their customers. There is little either of politics or polemics in the issue, but there is sufficient stimulus to bring out ideas that may be latent, and to encourage observation and enterprise, which is not the least object in bringing together the work of many men associated with our craft.



## South African Vets. at Work.

THE prevalence of many strange diseases with weird names, and the want of time, opportunity, and sufficient staff to track each to its lair, are the burden of the lament contained in the report for 1903 of Mr. D. Hutcheon, M.R.C.V.S., Veterinary Surgeon for the Cape Colony. But Mr. Hutcheon and his nineteen assistants manage to fill eighty-eight pages with condensed narratives suggestive of long journeys o'er veld and river, in the pursuit of fiery untamed microbes which they label, "Heart-water," "Rinderpest," "Redwater," and of good work accomplished. Rinderpest broke out in the Colony in 1901, but it was not until the end of 1902 approached that the veterinarians were able to grapple with the outbreaks in a systematic manner. Mr. Hutcheon claims credit for himself and assistants in stamping out the disease in April, 1903, their complete success being, he says, almost wholly due "to the use of strong serum in large doses." Doses of 100 c.c. of serum were injected into cattle in an infected herd, while 50-c.c. doses were found sufficient for cattle in healthy herds. The total amount of serum produced at the Serum Station during the period of suppression was 118,621 doses. Among the general diseases of stock, glanders and epizootic lymphangitis appear to have given most trouble in 1903. Two forms of dietetic disease, Stijfziekte and Lamziekte, or osteo-malacia and paralysis, were also treated. The contributing cause of both is atonic dyspepsia. Stijfziekte is a highly congested condition of the cancellous tissue of the articular extremities of the bones of the limbs, particularly those of the fore legs. The inflamed condition of the end of the long bones is accompanied with acute pain and lameness. The principal treatment consists in care, comfort, and nourishing diet. Lamziekte is a form of paralysis associated with a congested condition of the bones of the vertebrae and other bones—similar to Stijfziekte. The treatment of mild cases of Lamziekte is possible by the use of strong purgatives and by friction of the body and limbs. The following dose is recommended:

Epsom salts	...	...	1 to 2 lbs.
Common salt	...	...	$\frac{1}{2}$ to 1 lb.
Powdered nux vomica	...	...	1 oz.

To be mixed in from four to six bottlefuls of warm water.

Other doses that have been found efficacious are:

(1)	Raw linseed oil	...	2 bottlefuls
	Croton oil	...	30 drops
	Mix and administer.		
(2)	Powdered aloes	...	1 oz.
	Powdered croton-beans	...	1 dr.
	Powdered ginger	...	$\frac{1}{2}$ oz.

Mix in a large bottleful of water.

In very acute cases immediate slaughtering is recommended. Mr. Hutcheon urges the appointment to this Department of a field botanist to assist in the detection of plants that are poisonous to live-stock. Mr. W. Robertson, bacteriologist to the Agricultural Department, reports the results of bacteriological examinations made by him during the year. He states with regard to heart-water that it has been definitely proved that the contagion of that disease does not pass through the pores of a Berkefeld or Chamberland filter. During the latter part of 1903 the Bacteriological Laboratory prepared and issued mallein—apparently the only certain remedy for glanders—and the Laboratory is in a position to supply not only the Cape Government but neighbouring Colonies as well. The mallein is prepared by Nocard's method, and is carefully tested before being sent out. Cases of epizootic apthæ, swine-fever, epizootic lymphangitis, and Rhodesian cattle-disease are also reported upon from a bacteriological point of view, the experiments of Dr. Robert Koch being par-

ticularly referred to in connection with the last-named disease—now known as African Coast fever. Mr. Robertson appears to be at issue with Dr. Edington, Director of the Bacteriological Institute, Grahamstown, regarding a case of supposed "African Coast fever" in 1902, and he takes the opportunity in his report of stating his side of the controversy. Veterinary-Surgeon Dixon, of East London, tells of success with mallein in glanders, and of excellent results with chloride of ammonium and belladonna (combined with a dose of calomel) in malarial biliary fever. Chronic induration of the liver, he says, if taken in the early stages, succumbs to large doses of calomel until the bowels act, together with hypodermic injections of strychnine in 1-grain doses, or the administration internally of 1 dr. of nux vomica twice daily. A legacy of the war, which gave Veterinary-Surgeon Robinson, of Kynsna, a good deal of work was mange. He found spraying with a solution of one of the tar dips (*i.e.*, the soluble cresols) very effective. The spray is applied two or three times at intervals of about six days. For localised patches of mange nothing was found equal to 9 or 10 per cent. mixture of oleate of mercury in vaseline. Veterinary-Surgeon Chase reports the death of a Clydesdale stallion at Elsenburg due to poisoning by eating parts of the oleander-plant. He also had to deal with another case of vegetable poisoning among some cows. This was caused by eating the evergreen and quick-growing hedge-plant *Cestrum nocturnum*. In connection with this plant subsequent experiments showed that at times it may be eaten by cattle with impunity, and Mr. Chase considers it is only toxic when cut at a particular time and if dried in a certain way. Epizootic lymphangitis, unless taken at a very early stage of the disease, is apparently hopeless. A cure by operation is recorded by Veterinary-Surgeon Goodall, of Worcester. After casting the animal he carefully disinfected the parts, then excised the swollen lymphatic some distance above and below the suppurating point, afterwards cauterising the wound with pure carbolic acid. The after-treatment consisted in syringing the parts daily with carbolic solution (5-per-cent.) and applying a dry dressing of iodoform, boric acid, and starch. He also administered a daily dose of 2 dr. of potassium iodide in the drinking-water.

### "Digestive Liver-pills."

This title should be erased from the non-dutiable titles on p. 285 of *The Chemists' and Druggists' Diary*, 1905. It is properly included in the list of dutiable titles on p. 284.

### Artificial Vanillin.

It is believed that much of the vanillin now on the market is manufactured from synthetic guaiacol, but the peculiar odour of this product is very objectionable and renders it liable to be regarded with suspicion. As far as can be judged from an examination of samples, and from general information available, this synthetic vanillin is now being mixed with that made from natural eugenol, and sold in the ordinary manner. If this is so, it is probable that the use of clove oil for this purpose will eventually become much more restricted.

### Ol. Amygd. Persic.

*A propos* of the recent almond-oil prosecutions, Mr. W. Johnston, Secretary of the Chemists' Defence Association, has a useful note of warning in the "Anti-cutting Record" as to the sale of peach-kernel oil for almond oil. He suggests that wholesale houses should discontinue the use of the word "almond" or "amygd." in connection with the listing and labelling of peach-kernel oil. Mr. Johnston commends the practice of describing peach-kernel oil as "Ol. Persicaria" or "Peach-kernel Oil commonly known as Foreign



Oil of Almonds." Another suggestion is to drop the use of the word "Dulc." in connection with ol. amygd. Sweet almonds are rarely, if ever, now used as a source of the oil, the bitter almonds being almost universally employed.

#### Cannot be Bought.

Private Bills describe a specific kind of measure in Parliamentary procedure, including railway, municipal, and personal claims, wherein Parliament assumes judicial as well as legislative functions. Loosely and inaccurately. Bills introduced by private members are sometimes termed private Bills in distinction from those supported by the Government, and the Pharmacy Bill is not infrequently so referred to. A statement was recently published in connection with this Bill indicating the fees which have to be paid at each stage of a private Bill. The association of the scale of fees with the Bill is based on a misapprehension. The Pharmacy Bill is as much a public measure as the Army Bill, the Licensing Bill, or the Deceased Wife's Sister Bill. It is introduced for the good of the nation, and not for the advantage of a class, and, fortunately or unfortunately, its second reading cannot be bought.

#### Geographical.

[In our report of the meeting of the North Kent Chemists' Association last week (*C. & D.*, January 21, p. 91) the names of two members who were present, Messrs. Chesterfield and Lincoln, appeared in brackets, as though they were the towns bearing these names. The honorary secretary, in drawing attention to this inadvertence, informs us that the Association is strong in geographical cognomens.—EDITOR.]

We knew that North Kent courtesy  
Strove ever of its best to yield  
To all and sundry, for, you see,  
New Brompton has a Chesterfield.  
We'd heard that Gravesend gave the cue,  
To all that pharmacists require;  
But quite forgot (if e'er we knew)  
That Northfleet is in Lincoln's shire.  
We'd puzzled off; but now we know—  
And truthfulness our Muse impels—  
That if to Maidstone you'll but go,  
You'll find that you will get to Wells.  
And though some eerie things are told  
By palmists who have guessed your hand,  
You'd scarce believe, I'll make so bold,  
That Chatham takes in Westmoreland.

#### Cocoa Considered.

The "Lancet" for January 7 contained the first of two articles on cocoas, the subject being considered chemically and physiologically. The interest of the article resides chiefly in the consideration of the alkalinity of the leading cocoas, and our contemporary makes the general denial that any of them contain added alkali. The following is a table of analytical figures:

Cocoa	Total Mineral Matter (Ash). Per cent.	Alkalinity of Ash Reckoned as Potash. Per cent.	Alkali in Cocoa.
Bensdorp's soluble ...	7.10	2.35	None 1
Barry's essence ...	4.60	1.08	" 2
Van Houten's soluble cocoa ...	8.80	3.14	" 3
Epps's cocoa essence ...	3.90	0.75	" 4
Fry's concentrated cocoa ...	5.50	1.97	" 5
Cadbury's cocoa essence ...	4.00	0.65	" 6
Mazawattee cocoa ...	5.50	2.06	" 7
Schweitzer's cocotina ...	5.70	2.02	" 8
Suchard's soluble cocoa	6.40	3.55	" 9
Rowntree's elect cocoa	7.40	3.14	" 10
Loose cocoa ...	7.70	2.96	" 11

1. Slight alkaline potassium salts, but neutral as regards free alkali. 2. Slight acid reaction. 3. Slightly alkaline reaction, due not to alkali but to organic salts of potassium and

phosphates; otherwise perfectly neutral. 4. Acid reaction. 5. Acid reaction. 6. Acid reaction. 7. Neutral reaction. 8. Neutral reaction. 9. Neutral. 10. Neutral; rich in organic salts of potassium, including phosphates. 11. Neutral; rich in organic salts of potassium, including phosphates.

The figures show some great variations in the ash-yield, which suggests to us further inquiry, especially as the alkalinity-figures are not quite consistent with the foot-notes.

#### A Journalistic Centenary.

"The Edinburgh Medical Journal" has the distinction of being the only journal in this country connected with the healing art which has reached its centenary. The event is celebrated in a special Centenary Number, published by Mr. Young J. Pentland, which records the progress of medicine and surgery and their branches during the past hundred years, chiefly as told in the past numbers of the journal. The Editors (Drs. G. A. Gibson and Alexis Thomson) tell the history of the journal, amongst the editors of which were the late Sir Robert Christison and Sir Henry Littlejohn, portraits of whom are given amongst those of twelve past editors. The number is most interesting, but we can only spare the space to quote one passage of special interest to our readers. It is the following, by Dr. Harvey Littlejohn:

Our review of the journal in the first half of last century cannot close without one more reference to Christison, and an investigation by him. We refer to his report to the Royal College of Physicians of Edinburgh on "The Adulteration of Drugs." His attention was first called to the subject several years previously, by failing in an experiment before his class to obtain the reaction for bichloride of mercury with iodide of potassium. On proceeding to inquire into the cause, he discovered that the iodide consisted of 80 per cent. of carbonate of potash, 10 per cent. of water, and only 10 per cent. of iodide of potassium. This atrocious adulteration was knowingly sold by a Glasgow firm all over Britain, and accounted for the failures often complained of at that time in the use of the salt as a remedy in medical practice. Adulteration of other drugs was also rife; in fact, Christison states in his report, "It may be safely averred that few medicines in general use escape occasional sophistication; that some are scarcely ever pure; that the impurities are frequently so great as to render the articles nearly or entirely inefficacious, and that medicines of this kind are to be found occasionally in the shops of even most respectable druggists." Christison's report, and the simultaneous inquiries of Dr. Pereira in London, were directly responsible for the marked improvement which soon took place in the purity of drugs, and more especially in the means which were adopted by the Legislature to prevent sophistication.

"Atrocious adulteration" is strong for times when preparation of chemicals by set formulæ was considered proof of their purity, and the formula for potassium iodide was found to yield a salt containing carbonate. It may be remembered that the first British Pharmacopœia gave a process for sodium nitrite which yielded sodium carbonate with a trace of nitrite, and there are still ghosts in the lecture theatre at Bloomsbury Square that laughed at Redwood and Attfield's exposure of this blunder.

#### Medical Dispensing.

Attention has been called by correspondents in a contemporary to an advertisement by Messrs. Brady & Martin, Ltd., of Newcastle-on-Tyne, in a medical journal recently, in which the following passage occurs:

##### DISPENSING.

"Theoretically it is undoubtedly better that dispensing shall be done by the pharmacist, and prescribing by the medical man."—*Extract from the Presidential Address, British Pharmaceutical Conference, July, 1894.*

Much has happened since this was written, but one fact stands out prominently before the medical profession—the enormous extent to which self-medication and counter-prescribing have increased—the former fostered by firms who put up drugs—some of them dangerous—in forms and with directions which tempt patients to treat themselves; the latter by the publication of compilations which give prescriptions for the treatment of a very large number of



ailments, many of which are of a serious nature, ranging from amenorrhoea to whooping-cough.

Practically there can be no doubt that it is more satisfactory for the patient that the general practitioner, who has received a prolonged and scientific training in the causation and diagnosis, as well as in the treatment of disease, and who can obtain his drugs and pharmaceutical preparations from sources upon which he can absolutely rely, shall dispense his own medicines.

The presidential address quoted from was delivered by Mr. N. H. Martin, the senior of the three directors of Brady & Martin, Ltd. We do not admit that the second paragraph is justified by the facts, or, if it be so, that it is a reasonable deduction from it that doctors should do their own dispensing, and that this would be a remedy for the evils. There is ample evidence that in many countries where the prescribing and dispensing of medicines are confined to the appropriate branches, the public are better served. This happens in Scotland and Ireland as well as in France and Germany, but with this splendid difference, that in our own countries the conditions are the result of mutual confidence between physicians and pharmacists. We seem very far from this consummation in England and Wales; there are, it is true, a few centres in which physicians resolutely refuse to dispense medicines, and chemists to prescribe, but there are others where the dispensing of medicines by doctors is steadily encouraged by wholesale firms such as Brady & Martin, Ltd. They are not alone in this matter; it is legitimate and profitable business, which none but the most ethically pedantic would refuse to do. Mr. N. H. Martin is not ethically pedantic; he has occupied important official positions in pharmacy, and the name of his late partner (Henry Bowman Brady, F.R.S., LL.D., pharmaceutical chemist, and ex-examiner to the Pharmaceutical Society) recalls solid work for the advancement of pharmacy which is in a direction the very opposite to that inculcated in the advice now given by his successors. Although Dr. Brady started the business on the same lines, there is no inconsistency, but there is a something in the present assertive attitude which one cannot help regretting—something which Du Maurier's pencil might have included in the gallery of things better left unsaid.

## Reviews.

*A Critical Revision of the Genus Eucalyptus.* By J. H. MAIDEN. In parts, 2s. 6d. each. Sydney, 1904: W. A. Gullick.

THIS revision of the eucalypti by the Government Botanist of New South Wales was commenced in publication in March, 1903, and we have received five parts, dealing with *Eucalyptus pilularis*, Sm., and var. *Muelleriana*, Maiden; *E. obliqua*, L'Héritier; *E. calycogona*, Turcz.; *E. incrassata*, Labil.; *E. fecunda*, Schauer; *E. stellulata*, Siebert; *E. coriacea*, A. Cunn., and *E. coccifera*, Hook. f. Each monograph deals adequately with the morphology of the plant, contrasting it with its congeners, enumerating its synonyms, and describing its range. The work promises to be one of great value, for since von Muller's classic on the subject great advances have been made on eucalypti, and physical characteristics of the individual products have thrown much light on problems which, regarded in the purely botanical light, are difficult of solution. Mr. Maiden's "Revision" is magnificently produced, and is well illustrated with plates from authentic specimens.

*The Practical Grocer.* Vol. II. By W. H. SIMMONDS. 6½×10½. Pp. 272. Gresham Publishing Co.

THE first thing that strikes one on taking up this handsome volume is admiration for good technical handicraft. The book is a fine example of the art of publishing. The outside cover is chaste, in artistic design, and the interior shows good clear printing on fine thick paper, with eleven full-page illustrations, four being coloured and all beautifully reproduced. The frontispiece consists of coloured repre-

sentations of the clove, the nutmeg, cinnamon, black pepper, and pimento. The other coloured pictures represent "Packing Tea on a Ceylon Estate," "Coolies Cutting Sugar-cane, West Indies," and a "Jamaica Banana-plantation." The black-and-white illustrations show the interior of a tea-tasting room, a rice-field in Japan, a beet-sugar factory, loading oranges in Florida, and portraits of leading members of the grocery-trade. But it is not only for appearance that the book will be welcomed, for Mr. Simmonds and his coadjutors have got together a mass of information of much value to the grocery and spice trades. The pharmacist will find the chapters on "Spices" and "Condiments" particularly interesting, and there are also useful articles on "Sugars" and on "Honeys and Syrups." These are only four out of twenty special subjects exhaustively treated in this excellent manual.

*Inks: Their Composition and Manufacture, Including Methods of Examination and a Full List of English Patents.* By C. AINSWORTH MITCHELL, B.A., and T. C. HEPWORTH. With twenty-six illustrations, including four plates. 7¼×5¼. Pp. 251. 7s. 6d. net. 1904: Charles Griffin & Co., Ltd.

THE making of ink possessing those qualities of permanence and blackness that are so much desired is one of the most difficult operations in industrial chemistry, from the reason that the product of the same formula often differs considerably from various causes. The best way of overcoming these difficulties is obviously to study the principles upon which ink-making depends. Up to now the subject has received no comprehensive treatment, so that the present authors are doing a service to applied chemistry in setting down the results of their inquiry. After an historical introduction in which some fifteenth-century recipes for ink are quoted, carbon writing-inks (Chinese, Indian, and Japanese ink, etc.) are considered, then the larger subject of tannin inks. Analytical methods of testing inks are given, these being followed by chapters on printing-inks, copying-inks, marking-inks and safety-inks. A complete list of English patents for ink from 1688 to 1902 is the final section of the book. The work is intelligently and carefully done, and although the recipes are not put forth in detail, the chemist will find no difficulty in following the directions when once the principles are grasped.

*Materia Medica of Vegetable and Animal Origin.* By JOHN HUMPHREY. 16mo. Pp. xiii+494. 5s. net. London, 1905: Henry Kimpton.

"No other work covers exactly the same ground, or contains such recent information on many points." Thus Mr. Humphrey in his preface. "The author has done his best to combine," etc., says Mr. E. M. Holmes in a modest "introduction" which he has written to follow the preface. We take it that these assurances are not intended for reviewers, otherwise what is really a good book for students of materia medica would have scant mercy at their hands. The author has had the courage to write a book suitable in compass for those who are preparing for examinations, and to serve up the information as a series of short articles, arranged in each case on a definite plan, but without those subdivisions of botanical name, natural order, description, parts used, preparations into which it enters, etc., which come down to us by tradition rather than through any special merit in the fitness of things. It may be remembered that the materia medica examiner used to place a specimen before the student with a sequence of questions. What is it? Botanical name? Natural order? Active principles? Adulterations? Preparations? That was the *Materia Medica* Frankenstein. It is out of date, and the examination candidate who desires to know the subject in a manner which will be useful to him in business needs something of the nature that Mr. Humphrey furnishes in this volume. It is the narrative style rather than any other, and the information generally is good, and is presented in forcible and intelligent style. The book is marked "Kimpton's Pocket Text-book Series, No. 1," and the "format" predicates a serviceable and useful collection.

ALUMINIUM, although abundant in the soil, is seldom taken up by plants; there are, however, two plants of the genus *Lycopodium* which assimilate it.



## Cod-liver Oil :

### Its Characters and Tests, with Special Reference to the Chelsea Cases recently Decided.

By JOHN C. UMNEY, F.C.S., and C. T. BENNETT, F.C.S., Pharmaceutical Chemists.

AS we had every reason to believe that the cod-liver oils which have been the subject of the prosecutions under the Sale of Food and Drugs Acts before the Kensington Bench of Magistrates during the past two months were genuine, we became keenly interested in the subject and decided to make a complete examination of the cod-liver oils of trade as prepared in Norway, Newfoundland, Japan, Great Britain, and elsewhere—not excluding oil made by ourselves from selected livers of finest fresh cod as met with in the London market. As the purity of cod-liver oil and tests for determining same are both of interest and importance to chemists and druggists, we have decided to place on record the results of our laboratory-research, and to supplement the facts deduced therefrom by a reference to the tests inserted in other national Pharmacopœias, and the observations of expert chemists and British pharmacists during a period covering upwards of fifty years.

In the onset it became evident that difficulties would arise when any attempt is made to lay down hard-and-fast tests for natural substances, subject to processes of refinement which may not alter their therapeutic value, while probably altering their physical properties as determined by tests, and improving the physical properties as judged by appearance, odour, and taste. This statement is particularly true of cod-liver oil, as most pharmacists know, and it is not improbable that those who are charged with the enforcement of the Sale of Food and Drugs Acts have now acquired an extended knowledge of the subject.

The British Pharmacopœia was not compiled as a standard under these Acts, although in the absence of any other it has been accepted as *prima-facie* evidence, or evidence *pro tanto*, as Dr. Lewkowitsch so pithily put the matter last week. In our research we felt this at the outset, and for the purpose of proof that the incriminated samples were pure cod-liver oil, we were forced to take the British Pharmacopœia in conjunction with standard technical works. What, therefore, is generally regarded as an *obiter dictum* became an evident fact, and since it was impossible for us as pharmaceutical chemists to prove by the B.P. tests what we knew to be true, is it reasonable to say that such tests alone should guide the decision of a legal tribunal which is asked to adjudicate on a denial of the truth? We think the answer is obvious, but we call attention to the facts as here stated.

#### PHYSICAL AND CHEMICAL CONSTANTS.

The British Pharmacopœias of 1867 and 1885 described cod-liver oils that would now be known as congealing oils, while the Pharmacopœia of 1898 describes a non-congealing oil, as also do the German Pharmacopœia IV. and the United States Pharmacopœia, 1890. There appears to be practically no difference of opinion as to a good many of the physical constants of pure cod-liver oil.

The *Specific Gravity* usually falls between 0.925 and 0.931, although this is in itself very little guide, because the majority of fish and blubber oils are similar in this factor.

*Acidity.*—The British Pharmacopœia makes no limitation of acidity, but the United States and German Pharmacopœias give tests to limit the amount of free acid, both requiring that the oil shall give only a faint reaction to litmus moistened with alcohol. A good deal of attention has been paid to the amount of free acid present in some of the samples of oil that have been recently under examination, but of the many samples we have examined very few have had a higher free acidity than 1 per cent., calculated as oleic acid.

The *Saponification-number* is alone of little value for detecting impurity in cod-liver oils. The limits are so wide and the proportion of the impurities which are unsaponifiable is so small that an abnormal amount of the latter does not appreciably diminish the actual percentage of potash absorbed. The determination of the actual percentage of *unsaponifiable matter*, however, is of some importance. Parry and Sage some years since examined a number of samples, and found that the amount of unsaponifiable

matter rarely exceeded 1 per cent. Dr. Lewkowitsch, in the 1904 edition of his "Oils, Fats, and Waxes" (p. 665), states that of late years high proportions of unsaponifiable matter have been found in cod-liver oil, and he holds the opinion that this indicates admixture with other liver oils. He states that unsaponifiable matter should not as a rule exceed 1.5 per cent. Lately, however, for some reason (so far unexplained), we have had samples brought under our notice containing from 2.3 to 4.6 per cent. of unsaponifiable matter, but in each instance the oils were readily condemned by taste and odour, and the iodine-absorption of the oils was sufficiently low to indicate that they were not normal, and possibly impure. In this connection it may be well to draw attention to the very high figures for unsaponifiable matter recorded by Mr. Mann in his paper on "Cod-liver Oil and its Adulterants" (see THE CHEMIST AND DRUGGIST, December 5, 1903). We find it difficult to believe that the high proportions he finds in Norwegian and Newfoundland oils are representative of pure oils. We have found, however, that when extracting the unsaponifiable portion with ether from the saponified oil, it is necessary that the solution should be distinctly alkaline, and the ethereal solution should be thoroughly washed with successive quantities of water in order to ensure the elimination of soap. With this precaution we believe that it is not usual to obtain more than the figure we have recorded as the percentage of unsaponifiable matter from the finest pure medicinal cod-liver oil.

*Iodine-absorption.*—The figures for iodine-absorption recorded in a previous paper (see C. & D., July 4, 1903, p. 37) are approximately accurate, but it must be remembered, in recording the iodine-absorption figure, that the test of the German Pharmacopœia is, for an absorption of four hours with prescribed limits, 140 to 152, while many of the results recorded and referred to in the recent prosecution are for a total absorption (usually eighteen hours), for which a satisfactory figure would appear to be from 154 to 170. It should also be observed that iodine-absorption figures are of no great value, except as applied to oils of the same description—that is to say, oils that have been prepared by subjecting to approximately the same temperature for the removal of stearin. The iodine-value of the stearin is considerably lower than that of the liquid glycerides of the oil. We hope to publish later the results of a series of experiments on the separated stearin of Newfoundland cod-liver oil, a considerable quantity of which we have now received for examination.

The new Italian Pharmacopœia includes a test for the detection of iodine in the oil based upon the method suggested by Stanford ("Year-book of Pharmacy," 1884), but whether this will be found on rigid examination to be a safe indication we are not yet able to say. It is not quantitative, and therefore of no value in detecting admixtures. Mr. Stanford believed that iodine has little to do with the therapeutic value of cod-liver oil.

*Reichert "Number."*—From the results of our analyses we are of opinion that an oil with a higher Reichert value than 1.0 is unpleasant to the taste, and, indeed, almost in that way recognisable as an impure oil. The Reichert number of the oils which we have examined falls within the very narrow limits of 0.4 and 0.7.

*Colour-reaction.*—In the case recently before the Court, almost the whole of the interest was centred round the unfortunate colour-reactions, especially the violet one with sulphuric acid, which test found a place in the British Pharmacopœia, 1898. The history of this test and observations on its shortcomings are worth recording. Briefly it is as follows:

In the "Pharmaceutical Journal," 1843, p. 199, a supposed test for cod-liver oil was put forward by a Mr. Hockin, of Manchester, the test depending upon the formation of a violet colour on mixing together 4 parts of genuine cod-liver oil and 1 part of strong sulphuric acid, to which the editor (Mr. Jacob Bell) added a footnote "That the test will merely indicate the presence of cod-liver oil, but does not afford the means of ascertaining whether oils are mixed with it or not."



Also on p. 242, Matthew Husband, of Exeter, called attention to the fact that the reaction is one for liver oils in general, and is afforded by the oil of the liver of the hake, among others. In the elaborate paper on cod-liver oil by Pereira ("P. J.," 1848, p. 370), he referred to the statement by Gobley, "That cod-liver oil which has been prepared by ebullition in water does not possess this property of affording a violet colour in sulphuric acid, but a clear red colour." He referred also to the possibility of the addition of bile substances to oils so that tests might indicate its presence.

This shows that from the earliest time these reactions were looked upon as solely indicative of a class of oils, and they were subject to modification probably according to the methods of preparation. It is therefore to be regretted that, in the form in which they were included, they found a place in the British Pharmacopœia, 1898. The colour produced may be taken as indicating a class of liver oils, and is said to be due to lipochrome bodies from the liver tissue and adventitiously present in the oil, which may be eliminated by refinement of the oil, or even possibly decomposed by the temperature at which it is prepared; but it is certain, anyhow, that the test is of no value other than as indicating a class of oils—even that without absolute certainty, and certainly without any reference whatever to its intensity being taken as a criterion of purity or extent of sophistication. The better-tasting oils in our experience yield the least intense colouration when the test is applied under the most favourable conditions—that is to say, with the oil dissolved in chloroform, as stated in the United States Pharmacopœia, or in carbon bisulphide, as required in the German Pharmacopœia. In these cases the charring action of the sulphuric acid upon the glycerides of the oil is sufficiently retarded to give the true colour-reaction without any marrying influence. What the effect of sunlight is upon the chromogenetic substances is not clear, but it is not impossible that it may result in destruction of the pigments, and this is important when one takes into consideration that cod-liver oil is very often placed by retailers for show in their windows. After saponification of the oil, and exhausting the soap with ether, the residue contains besides cholesterol practically all the bodies affording the colour-reactions with acids, and we have found that it is not difficult to add these separated substances to seal oil and to obtain with it the colour reactions of liver oils.

The *B.P. Nitric-acid Test*, known as Unger's, is one that has been most adversely commented on in the recent prosecutions, and apparently with a considerable amount of justice so far as the refined non-congealing oils of to-day are concerned. There is no question whatever that formerly, when the oil was prepared from livers in a less fresh condition than to-day, the reaction was given in certain instances, and was called attention to by Unger and praised by him certainly under misapprehension of its value. It must not be forgotten that the replacement at the fisheries of sailing-vessels by steamers means operation upon the livers in a much better condition than was formerly possible, and this in itself, so far as our observation goes, makes a very material difference in the operation of Unger's test; indeed, the better class of Newfoundland oils which we have examined gave practically no indication whatever.

The *Nitric-acid Colour-test*, which probably depends upon adventitious impurities obtained from the livers, does appear to give in most instances a distinct reaction, but Newfoundland oils have come under our notice—of the purity of which, from a knowledge of the source of the oils and their methods of preparation, we are absolutely convinced—which certainly do not give the reaction.

#### CONCLUSIONS.

From a study of the foregoing it will be seen that the whole subject resolves itself into an acceptance of certain well-defined limits for the physical constants of the oil, to be taken together with judgment by taste and smell, with due regard, we hope, to the reputation of those handling the oil, who fortunately have not been made to suffer by the recent prosecutions, as would have been the case had the verdict of the Magistrates been different. We are of opinion that if the monograph in the next British Pharmacopœia is desired to be made one in respect to these matters in consonance with present-day knowledge, it

should at least include such physical constants as we have set out, as well as the sulphuric-acid test on the lines of the German Pharmacopœia, the iodine-value, a limit for free acidity, and saponification-value—the limits to be practically those which we have described as covering the pure oils which we have had the opportunity of examining; in other words, the monograph might read as follows:

#### *Oleum Morrhue Purificatum.*

##### Refined Cod-liver Oil.

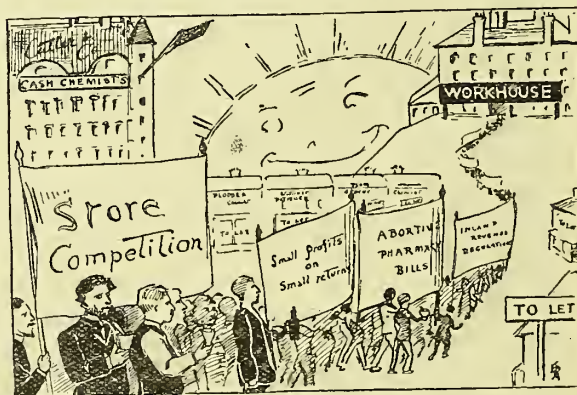
The oil extracted from the fresh liver of the cod, *Gadus Morrhua*, Linn., by the application of a temperature not exceeding 180° F. (82.3° C.), and from which solid fat has been separated by filtration at about 23° F. (-5° C.).

*Characters and Tests.*—Pale yellow, with a slight fishy but not rancid odour and a bland fishy taste. Specific gravity, 0.925 to 0.931. No solid fat should separate on exposure of the oil for two hours to a temperature of 32° F. (0° C.). Readily soluble in ether, chloroform, and carbon bisulphide, and slightly soluble in alcohol (90-per-cent.). Refractive index (at 20° C.) not below 1.4790. Saponification-value, 179 to 198; iodine-value (eighteen hours' absorption), 154 to 170. Free fatty acids (calculated as oleic) should not exceed 1.5 per cent. Melting-point of fatty acids, 23° to 26° C. Unsaponifiable matter not exceeding 1.5 per cent. One c.c. of the oil dissolved in 10 c.c. of carbon bisulphide should give a violet-blue colour with one drop of sulphuric acid.

We submit this suggested monograph "without prejudice"; for, in view of the recent action being in one sense a crisis in the administration of the law relating to the adulteration of drugs, we think, as pharmaceutical chemists, there is some gravity in putting forward the conclusions of our experience as analysts. In suggesting pharmacopœial standards we have to weigh the two considerations (referred to in a letter by one of us in last week's *C. & D.*) as to whether the guide-book of the prescriber and dispenser is to be equally regarded as the commercial standard. In the latter case more frequent revision (probably annual) may be necessary, and this means inconvenience and possibly danger. On the other hand, we may have the characters and tests written years ago relied upon in a court of law and held by a stipendiary or bench of magistrates to be those which should be used as a guide in the sale of a particular substance, although improvement in production has been made in the meantime. The situation cries aloud for a modification of the existing conditions, and in our opinion it would be well for a conference to be held without delay between representatives of the Pharmaceutical Societies of Great Britain and Ireland, the Society of Public Analysts, the Institute of Chemistry, the wholesale drug-trade and the Chemists' Defence Association, with a view to placing before the Legislature some of the dangers of the present position and the necessity for a revision in procedure.

#### What the Trade is Coming to.

(A Pessimistic View.)



This sketch is from the pencil of a daughter of Mr. H. G. Adams, chemist, Newport, Salop, who has recently entered her teens, and is now studying in a London Art School.



## Winter Session.

### Irish Chemists' Assistants' and Apprentices' Association.

At Dublin on January 20, a meeting of this Association was held at the Nelson Café, 33 Lower Sackville Street, the President (Mr. Edgar B. Aplin) in the chair. The matters dealt with were mainly routine. It was decided to hold the annual dinner of the Association on February 4, at 7.30 P.M., in Larchet's Hotel, Dame Street. Upwards of thirty names were handed in as intending to be present at the function. The President and Messrs. Murphy (Vice-President), Jameson, and Creed were appointed a Dinner Committee.

### Bournemouth Pharmaceutical Association.

The monthly meeting was held at the Association's rooms on Thursday, January 19, Mr. S. Hardwick (President) in the chair. Mr. C. F. Pars opened a discussion on

#### DISPENSING DIFFICULTIES AND PROBLEMS.

Mr. Pars said that the question of dispensing is one that naturally appeals to chemists, particularly so in a town like Bournemouth, where chemists are called upon to deal with prescriptions from all parts of the Kingdom. He then quoted a number of prescriptions recently copied into his book—*e.g.*, lecithin in sterilised oil for hypodermic injection, suppositories containing an inordinate amount of green extract, pills of gingerin and capsin, etc.—in each case describing his method of dealing with the difficulty.

Mr. S. Hardwick called attention to the difficulty of satisfactorily dealing with a prescription which required twelve or so pills to be pearl-coated, and described a method which he employed with very good results. His plan is to take a small enamelled plate, such as is usually bought for 2d. or 3d., and when it has been made hot to rub it over with a piece of cocoa-butter until a melted film covers the plate; the pills are then rotated on this and when evenly covered with oil thrown into a tin containing French chalk, and then rapidly revolved. He showed some pills which had been coated in this manner some weeks previously and still had a good surface and a very fair polish. Mr. Hardwick mentioned a curious incident which happened a short time ago. A customer returned to him some cachets (which had been put away for some time, not being required) with a complaint that they had no effect. On examination they were found to be empty. Reference to the prescription showed that they had contained chloretone, which, it was evident, had evaporated and left the cachet empty.

Mr. Bingham mentioned that he had the following prescription to dispense:

Pisic liq.	...	...	...	gr. ij.
Pumilin	...	...	...	℥ij.
Pulv. opii	...	...	...	gr. ss.
Ext. bellad.	...	...	...	gr. ̄.

Fiat pilula.

It was with some difficulty that he could make a presentable pill.

Mr. Boyle showed a very unusual prescription which he had to dispense a short time ago, viz.:

Acid. picric.	...	...	gr. iij.
Argent. nitratis	...	...	gr. vj.
Liq. ammon. fort.	...	...	ʒj.
Aq. coloniensis	...	...	ʒiij.

Ft. app. M.d.u.

He said that it was not without some uncertainty as to what might happen that he carefully mixed the ingredients together.

Mr. Toon proposed a hearty vote of thanks to Mr. Pars for opening the discussion which had led to a very interesting and instructive evening. This was seconded by Mr. Bingham, and carried unanimously.

### Chemists' Assistants' Association.

A MEETING held on January 19, at 73 Newman Street, W., was but poorly attended—the Pharmacy Ball held the previous evening is thought to have exhausted the energies of

the members. Short papers by members were read. The first was by Mr. G. E. Town on

#### SYRUP OF TOLU,

in which the following process was proposed. Dissolve 12 oz. of balsam of tolu in 12 oz. of spirit and mix with 12 oz. of sand. Add this to 2 gals. of warm B.P. syrup (a pint of water having been omitted to allow for the spirit and balsam), stir well, allow to cool, and filter by the filter-pump. A full-flavoured syrup results. The residual balsam not being exhausted, a second batch was made in the same way but using only half the B.P. quantity of tolu. The difference in flavour between the two is so slight that Mr. Town suggested that less tolu is necessary when making the syrup by this improved process.

#### A DISPENSING NOTE

was here interposed by Mr. Town. He finds that tr. quinine ammon. with phenazone, sodii salicyl., liq. ammon. acet., potass. acet., potass. cit., or ammon. benz., gives a clear solution, but with magnes. sulph., sodii brom., sodii iodid., potass. iodid., potass. brom., and ferri ammon. cit. it does not.

The next paper was by Mr. S. G. Stubbs on

#### FINGER-PRINTS.

As a method of identification the marvellous exactness of finger-prints is becoming more and more recognised. Sir W. Herschel, an Indian Judge, in 1891 was one of the first to introduce a system of identification by means of finger-prints, his method being based on the researches of Purkenje made in 1823. The system was very successful, but was for some reason or other allowed to drop. Mr. Francis Galton was the next to take up the subject, and his improved system, further elaborated by Mr. E. R. Henry, C.S.I., is now in use throughout India for civil as well as criminal purposes, and is recognised by the law as legal evidence.

The value of the system rests upon the facts, discovered by Galton, that in 699 cases out of 700 the ridges which make up the patterns on the fingers and the feet remain unchanged in form throughout life, and that the probability of two sets of finger-prints being identical is at least two million to one, and possibly more. The pattern of the skin may be marred by disease, but its value for identification-purposes is hardly lessened, as wounds but serve to further distinguish the owner of the fingers, and, in the case of ulceration, a man is hardly likely to have ulcers on all his fingers.

According to the system now in use in India finger-prints are divided into four classes, depending on the character of the ridges: arches, loops, whorls, and composites. Arches are defined as those ridges which run from side to side of the finger without any backward turn; loops are those which turn backwards without a twist; whorls those in which some of the ridges turn through at least one complete circuit; and composites, as the name indicates, are compounds of the first three classes or of loops and whorls. It is found in practice that 5 per cent. of imprints are arches, 60 per cent. loops, and 35 per cent. whorls and composites. The prints are therefore classed in two sets, arches with loops, and whorls with composites, denoted by L and W respectively. Taking the fingers in pairs in the natural order, right thumb and right index, right middle and right ring, and so on, it is obvious that one pair can only occur in four different ways: L with W, W with L, L with L, and W with W, or arranging them as fractions:

Right thumb L : W ; L : W  
Right index W : L ; L : W

Taking a second pair with the first it is seen that the possible combinations are 4<sup>2</sup>, or 16, and so, taking the five pairs, the total possible variations are 4<sup>5</sup>, or 1,024. This number is the square of 32, so a square cabinet is used, having thirty-two vertical and thirty-two horizontal pigeon-holes, which are numbered 1 to 32 horizontally and vertically, the numbers of the horizontal rows being represented by the denominators in the formulæ and those of the vertical rows by the numerators.

Then for the purpose of arranging the records in the cabinet, the fingers are taken in pairs and given the following values, if they come under the heading W—*i.e.*, the set



whorls with composites: For the first pair, 16; for the second, 8; the third, 4; the fourth, 2; and the fifth, 1. Arranged in fractions as before, the two extremes are

$$\begin{array}{l} \text{L, L, L, L, L, L; or } 0, 0, 0, 0, 0, 0 \\ \text{L, L, L, L, L, L; or } 0, 0, 0, 0, 0, 0 \\ \text{and } \frac{W}{W}; \frac{W}{W}; \frac{W}{W}; \frac{W}{W}; \frac{W}{W}; \frac{W}{W} \text{ or } \frac{16}{16}, \frac{8}{8}, \frac{4}{4}, \frac{2}{2}, \frac{1}{1}, \frac{1}{1} \end{array}$$

and adding the numerators and denominators separately we get  $\frac{0}{0}$  and  $\frac{31}{31}$ , which is brought within the cabinet-

numbering by adding 1 to the numerator and denominator, so that these two particular prints will be found in the first hole of the first row and the thirty-second hole of the thirty-second row respectively. This constitutes the primary classification, and the numbers obtained by these calculations are called the primary-classification numbers. Of course, with cabinets of more than 10,000 records, as most are, some of the holes get inconveniently full, the first one,  $\frac{1}{1}$ , in particular. Accordingly the records in each hole are further arranged by subsidiary classifications, which are based on counting the ridges and tracing their characteristics. For this purpose two fixed points are taken which occur in all imprints. These are termed "inner" and "outer termini," or "core-points," and "deltas," and those ridges only are counted which cut a straight line drawn between these points. The "inner terminus" or "core-point" is defined as the summit of a loop or a central line within a loop, or the central point of a whorl. The "outer terminus" is formed, as its other name "delta" implies, by the bifurcation of two ridges. There are other and more complicated secondary classifications, but the foregoing outlines of the primary classification are sufficient to show the beauty and simplicity of the system.

Mr. Stubbs then proceeded to explain the various methods of taking finger-prints, and gave a demonstration of the physiotype method that he prefers.

The final paper was by the President (Mr. R. E. Lownsbrough) on the origin and treatment of warts, in which he disproved the popular theory that warts are fungoid growths, and showed that they are due to malnutrition of the skin.

The President announced that the next "Cinderella" is to be held on February 8.

### Bradford Chemists' Association.

A MEETING of the members of the Bradford Chemists' Association was held on January 24, at the Royal Hotel, Bradford, the President (Alderman H. Dunn) in the chair. Mr. F. Pilkington Sargeant gave an address on

#### SHOULD "COMMERCIAL METHODS" BE INCLUDED IN THE MINOR CURRICULUM?

Mr. Sargeant said he had in a previous paper endeavoured to show that the scientific acquirements of the average chemist and druggist might be made a source of profit if developed in certain specified directions, and he contended that the Minor examination as at present conducted is no test of the scientific capabilities of the candidates. With, however, the possibility of a divided Minor it becomes necessary for chemists to consider whether developments in other directions are possible. If education has for its function "to prepare us for complete living," as explained by Herbert Spencer, it must be admitted that the education of the chemist is sadly lacking, not in scientific and academic subjects, but in those methods which form such an important part of the routine of successful business houses. Complete living—that is, successful living—is not the easiest task in this century for the young pharmacist. He must not only be a scientific man, one who has spent much of his time in acquiring knowledge which, however it may satisfy personal vanity, is of little use in business, but he must be a smart business-man, capable of withstanding the competition of men who have devoted their lives to the study of business methods, who can judge to a nicety the value in cash of a proposed advertisement, who can immediately detect a flaw in the methods adopted by their competitors, and who are supported by that most formidable ally—capital. Chemists are told that the departmental stores are legally established, that their immoral trading in pharmacy has

acquired the status of a legal custom; in other words, they have arrived at that point at which the question as to whether pharmacy is a trade or a profession must be settled, and, by almost common consent, it has been decided that it cannot pretend to the dignity of a profession. If, then, chemists must forsake those aspirations which many of them held, which they inherited from Jacob Bell and the later fighters of 1867 and 1868, hoping against hope that their position might be established, and that their ranks might produce a leader not afraid to sling a stone at the giant termed "vested interest"; if they must leave their profession behind, let them equip their young men suitably; let them adapt their teaching and their standard to the changing conditions. The chemist of to-day is ill-equipped to meet competition. He is well educated and conscientious, and serves the public better, perhaps, than the members of any other class, but his knowledge of business methods is most meagre. He has undergone three or four years' apprenticeship with a view to "learning the business," has taken a course at college and passed the Minor, and perhaps has had four or five years' assistantship to get "experience"; after which he opens a business, very often with a serene disregard of the suitability of the neighbourhood, the possibilities of the business, and a thousand-and-one other things which ought to be considered. Young men ought to be much better prepared than they are at present to enter business on their own account. They ought to have more approximate ideas of the amount of capital required, to be able to gauge the value of a district from a chemist's point of view, to discriminate between declining districts apparently well populated—say, near the centre of a city but off the main thoroughfares—and rising suburban districts, where young married couples spend their hard-earned salaries in infants' foods, etc., and otherwise in pandering to the extravagant tastes of the first baby. They ought to know better than many seem to know how to fit a shop and how to stock one, or how to value the stock and fixtures of any shop which is in the market. In other trades assistants are not handicapped as chemists' assistants are. The businesses are less personal, and, generally speaking, assistants get more insight into the business methods employed, and the proprietors are less conservative and more ready to inculcate new ideas in their methods of working. So far, however, it may be suggested that a little common sense and foresight would be sufficient. It is after opening the business that commercial acumen is necessary, and the speaker made the suggestion that the Minor student should undertake the study of commercial methods, and that, if a curriculum be enforced, some of the time should be allotted to that study. He suggested—(1) That he should understand or at least have an elementary knowledge of bookkeeping, and should be instructed in suitable methods of keeping and checking stock. (2) That he should have an intimate knowledge of terms used in commerce, and that, in addition to the provisions of the Pharmacy Acts and the Act to regulate the sale of arsenic, he should be conversant with the main provisions of the Sale of Food and Drugs Acts and of the laws which regulate the storage and sale of methylated spirit, calcium carbide, benzene, and other similar substances found in a chemist's shop. That he should understand (if it be possible for any human being to understand) the regulations of the Board of Inland Revenue regarding the stamping of proprietary articles. (3) That he should have some knowledge of the relative value of what are termed "side-lines." There might be several optional subjects, such as (a) photography, in which subject the candidate should possess, in addition to a knowledge of the detail of photographic work, an approximate idea of the cost of material; (b) aerated-water manufacture, about which the candidate might also be expected to understand the working of apparatus suitable for a retail chemist and the economic details in connection therewith. (4) That he should possess some knowledge of the art of advertising. He did not suggest that it should be essential for the qualification of the chemist that he should pass an examination in these subjects, but that opportunity for their study should be available, and should be provided for in any rearrangement which may be made in educational methods. The chemist's books might then cease to be the fearful and wonderful things common to-day, the stock-room might yield up its long-hidden trea-



tures, advertisements might be readable and might stimulate trade, while competitors might perhaps meddle even less with chemists' wares.

The President said Mr. Sargeant had referred to the great necessity of a leader who was not afraid to sling a stone at vested interests, and he also felt that necessity. The weakness of the present Council was that there was this want. As to the need of training in business methods, he pointed out that there are now good classes at the mechanics' institutes in bookkeeping and similar subjects.

Mr. Silson said that many a young man became overstocked because of the persuasiveness of the "commercial," who induced him to take a 28-lb. parcel when a 7-lb. parcel would do quite well. He still hoped that the departmental store was not going to be recognised as more legal than it was at present.

Mr. Hanson also referred to bookkeeping, and mentioned that he had a simple method which appeared to be sufficient.

Mr. Dutton said he thought students might be taught the use of surgical appliances, so that they would know something about bandages at any rate, and would know how to measure for an elastic stocking.

Mr. Mitchell said the keeping of stock-books was an important thing often neglected, as chemists should be able to tell at short notice what they were worth or what they had made in a year.

Mr. Silson, jun., suggested that methods of co-operative buying should be an important feature of any business training.

Mr. Dutton said he should be very glad to show to any chemist his method of bookkeeping, which he considered to be as nearly perfect as possible.

The President suggested instruction in first-aid ambulance work.

A vote of thanks was accorded to Mr. Sargeant, who briefly replied.

### Glasgow and West of Scotland Pharmaceutical Association.

A MEETING of this Association was held at 94 West Regent Street, Glasgow, on Thursday evening, January 19, and presented a remarkable and welcome contrast to the usual evening meetings of the Association. As a rule, the attendance is confined to, at the most, about a score of the more enthusiastic members of the Association, and, owing possibly to the late hours to which Glasgow chemists keep open their shops, the commencement of the proceedings is delayed till nearer ten o'clock than nine. Last week all this was changed, and this was the highest compliment that could have been paid to the lecturer, Mr. William Mair, F.C.S., of Messrs. Fletcher, Fletcher & Co.'s staff, who repeated his

#### IMPRESSIONS OF THE UNITED STATES.

The hall was uncomfortably crowded with a critical yet most appreciative audience, which included quite a number of ladies, and the meeting was begun prompt to time and finished at the reasonably early hour of half-past ten. Mr. W. L. Currie, the President, was taking part at another function in the city, but he so arranged matters that he was able to be in the chair at the beginning of the meeting and introduced Mr. Mair in an appreciative speech; the Vice-President (Mr. Murchie) taking his place in the chair during the remainder of the proceedings.

Mr. Mair, who had a cordial reception, said that he welcomed the invitation to repeat his lecture in Glasgow, a city which, he remarked, had produced men of mark in pharmacy and kings in science; a city of colossal business enterprises and possibilities; and a city which is without question conceded

to be the world's model in municipal enlightenment and probity. (Hear, hear.) Mr. Mair then explained that the material for his lecture was gathered on a recent tour he had made, as representing THE CHEMIST AND DRUGGIST, of the principal pharmacies and pharmaceutical manufactories of the United States, with a visit to the St. Louis Exposition. The tour was undertaken in connection with the annual meeting of the Society of Chemical Industry held in New York in September last, under the presidency of Sir William Ramsay, K.C.B. A characteristic portrait was shown in his laboratory of that distinguished alumnus of Glasgow University. Having made this preliminary explanation, Mr. Mair proceeded at once with his lecture, which was essentially the same as that delivered at Edinburgh (*C. & D.*, December 24) and at Dundee (*C. & D.*, December 31), but about fifty new slides were introduced, and consequently a large amount of new matter, bringing the number of slides up to 200. The anticipations formed as to an enjoyable evening were realised to the full. Mr. Mair showed himself an ideal lecturer, his brilliant and lucid descriptions and beautiful pictorial presentments of the many novel sights he witnessed on his tour holding his audience spellbound from the moment he got on his feet till he resumed his seat again amid a spontaneous round of applause. The secret of Mr. Mair's success as a lecturer may be said to lie in the fact that he never allows the interest to flag, there is not a moment lost from first to last; the hour-and-a-half's rapid lantern work being accompanied by running comment all the time, the lecturer communicating much information of interest obtained at first-hand and delivered in a lively and graphic style. A much larger number of lantern-slides had been lent, specially for the Glasgow lecture, by the British Royal Commission to the St. Louis Exposition, than on previous occasions. Among the pharmaceutical slides was one of the Hegeman Pharmacy, here reproduced.

At the close of the lecture the Vice-President complimented Mr. Mair upon his lecture, and Mr. J. P. Gilmour (Secretary) moved a vote of thanks, which Mr. Dunlop seconded, supported by Mr. Sutherland.

Mr. Murchie at this stage conveyed the thanks of the



PHARMACY OF THE HEGEMAN CORPORATION, 200 BROADWAY, NEW YORK.

Largest and handsomest in the U.S. Soda-fountain in marble, onyx, and bronze, 37 feet long, valued at \$20,000; beyond that 60 feet of shelving for proprietaries. On the left of the entrance, in the following order, are the cigar, wines and liquors, candy (confectionery), perfumery and the retail drug and tablet departments. Then the surgical instruments and fitting-room. The prescription-department occupies the entire width of the store (40 feet) in the rear: there are fourteen prescription-clerks, and about four hundred prescriptions are dispensed daily. The grill on the left is where the soda-water checks are bought beforehand.

Association to the ladies for having honoured the meeting with their presence.



## Our Town Traveller.

THE reports in regard to business throughout the whole-sale trade are on the whole more cheerful than they have been for a long time. There is no boasting by any means, but there is a disposition to endorse the general idea that more has to be done nowadays for less money. This is not peculiar to the drug-trade, but as regards our business it is notable that those who do the keen cutting trade, even in the wholesale, seem to complain most deeply on this score. The retail trade is pretty good. Christmas was a little disappointing in some quarters, but on the whole the season's trade is quite up to the average in all branches. It will be observed that these notes cover town and country on this occasion, but my perambulations began at

### BATH HOUSE, HOLBORN VIADUCT,

where I called to have a look at the new offices which Mr. A. E. Holden has recently furnished, thence to direct the business-promoting organisation of Messrs. Fairchild Bros. & Foster in the United Kingdom. My object, however, was not so much business as education, for the Fairchild scholarship scheme interests me, because it is so unconventional, as education encouragement schemes go, and I wanted to know, for the benefit of *C. & D.* readers generally, how it has been received by the trade. "I am well satisfied," said Mr. Holden, "I have received a large number of nice letters from chemists in all parts of the country, and quite a number of inquiries about points which the Committee of Trustees could not put into the preliminary statement of conditions, but it is all working out just right. Applications from students? Why, yes. There's quite a number who have entered already, although June 1 is the last date." I had a look over some of the correspondence. One earnest pharmacist in a good-sized town sent a list of all his colleagues there who have apprentices, asking a copy of the particulars to be sent to each of them; another wanted fifty copies of the circular, and so on. Then Mr. Holden showed me the draft of the application-form, in which he has had the assistance of an expert in touch with the Board of Education, and as soon as the Committee of Trustees has approved of this it will be available for all candidates for the scholarship and prizes. As I rose to make my way towards the steps that lead to Farringdon Street, my eye caught a pile of neat parcels. "Scholarships?" I queried. "Oh, no," said Mr. Holden; "these are samples of Fairchild products for medical men." A few more questions, and I learnt that Mr. Holden is sending out a 4-oz. bottle of Panopepton (the predigested beef-and-wheat liquid which serves the tired man so well until the meal is ready) and a 25-bottle of "Pepule" pepsin, with "100 clinical observations," and other things worth having, to every medical man in active practice in the United Kingdom, representing approximately 29,000 packages in all. "That is 725 gallons of Panopepton and nearly 1,500 $\frac{1}{2}$  worth of Pepule pepsin," I mused, and have written it all down, as chemists ought to get something out of those 29,000 packages.

### PHYSIOTYPE.

At Messrs. Barclay & Sons', Ltd., 95 Farringdon Street, E.C., I witnessed a demonstration of physiotype. This is a new process of "nature printing" invented by Mr. Francis Sheridan. My curiosity had been aroused by the advertisement of the new process in *THE CHEMIST AND DRUGGIST* at the end of last year, and I was not sorry that the inventor himself was to initiate me into the mysteries of his novel printing method. It is necessary to dissociate the mind from the idea that physiotype has anything to do with photography because as a fact the process is a mechanical one. I gathered that Mr. Sheridan received inspiration to invent physiotype from his occupation as a lithographer. The table was littered with examples of work, and after a few words of introduction Mr. Sheridan proceeded to show how his method is worked. First of all, a pad of what looked like wet blotting-paper was taken, and on this a spray of fern was placed covered with a piece of blotting-paper, and the whole put for a minute into a press such as is used for

copying letters. The spray was then placed on a sheet of printing-paper and again put in the press. There was no apparent difference in the appearance of the printing-paper, but an imperceptible film of moisture was transferred to the paper from the fern. A black "developing" powder was then poured over the impression, the black particles adhering to the parts that had been touched by the fern.



The soiled paper was cleaned by pouring over it some "clearing" powder, leaving the clear figure of the fern on a white ground. The final stage was to "fix" the image by floating the paper, face upwards, on a "fixing" bath, to make which a special powder is supplied. The impression is now permanent. Afterwards other physiotypes of lace, leaves, and finger-tips were made with a view to showing the uses that may be made of the process. In regard to finger-prints, physiotype is a great improvement on any other process used for this purpose in that it is cleaner, and gives clearer impressions. This naturally opens up the big subject of finger-prints, which are playing an increasingly important part in methods of identification for legal purposes. Physiotype is an interesting novelty, quite suitable for sale by chemists. It can be used as an amusement for children, and should form a part of the instruction now so fashionable under the name of nature-study. The uses that can be made of the process by older people are many—students may thus copy the outline of botanical specimens, the merchant reproduce his samples, and the police classify criminals by means of the tell-tale finger-prints. Mr. Sheridan also referred to modifications of his process for making lantern-slides and for lithography. In the former case a developing-powder is used that is fixed by heat, and in the case of transferring to a lithographic stone a greasy powder is needed. The illustration with this note is an enlargement of a finger-print taken by physiotype.

Messrs. Evans Sons Lescher & Webb, Ltd., of Liverpool and London, have secured an enviable reputation for

### CHEMISTS' SHOP-FITTING.

Perhaps one of their most successful ventures recently in this direction was the fitting up of the handsome pharmacy in St. Ann's Square, Manchester, of Messrs. Charles Midgley (Ltd.), which involved an expenditure of nearly 3,000 $\frac{1}{2}$ . The large plate-glass window, fronting on the square, is illumined after dark with twelve 32-candle-power electric lights in a single row. The window space is 6 feet by 4 feet. Within the doorway hangs a combined barometer and thermometer in a position easily accessible to the public as well as to the customer. One enters the pharmacy on Mosaic flooring of a pretty design, and walks to the long counter on parquet linoleum, with which the whole building is carpeted. The counter



is of a new design: it is 22 feet in length, and the front has been arranged in four graceful bays, which separates each customer. On the left, immediately on entering, are large bevelled plate-glass cases, about 8 feet in height, filled with perfumery. These cases at night are lighted by electricity. Depending from the elaborately decorated corniced ceiling are six electric chandeliers, each having three flower-shaped globes of pale yellowish tinted glass, with scalloped edges. The pharmacy proper is 30 feet in length, 25 feet wide, and 12 feet high; the ceiling is in Lincrusta work, with cornices of pale yellow, and friezes in ivory, with white terra-cotta paper below. At the end of the counter next the front window is the manager's office, a clear glass enclosure. The wall-cases have mirrored backs, and the stock bottles are of novel design. In the centre of this wall-space is an alcove of carved woodwork with mirrors at back and side. The wall at the back of the counter extends a distance of 36 feet, and on the opposite wall is a long range of upright glass cases, 10 feet high, and extending a distance of 33 feet. At the back of the pharmacy is the dispensing-screen, surmounted by a large clock. Below are wall-cases, and, at a convenient height from the floor, two plain, clear glass windows which communicate with the cashier's desk. The doors which communicate with the cash-office are of plain glass, and through them the cashier commands a full view of the interior of the pharmacy to the street. He can see every customer who enters, and to summon an attendant at the counter an electric bell is affixed, which he can instantly set ringing. Near by is a neatly fitted telephone box. Next to it is a "dark room." The doors of these boxes are formed of cloisonné glass of beautiful design. At the rear of the cashier's office is the dispensing and packing department. The latter communicates with the postal department, which has a special door opening into St. Ann's Square. In this part of the premises proprietary articles and specialties are kept. There is also a directors' room and managing-director's office, neatly furnished, and adjoining them the laboratory. The premises are heated throughout by steam. There are besides, in Barton Arcade, an elaborate suite of rooms fitted up for the treatment of patients by electro-therapy.

So much for Messrs. Midgeley's beautiful pharmacy. I turn now to the "Liverpool" virus for the destruction of rats and mice, for which Messrs. Evans Sons Lescher & Webb (Ltd.) are agents. It is prepared by the Liverpool Institute of Comparative Pathology by culture of Danysz's bacillus in a nutrient jelly and is supplied in tubes plugged with cotton wool and covered with paraffin wax. A salt solution is used to remove the virus from the tube, and dry bread or corn is soaked with the solution for the detection of the rodents. The tubes are sent out packed in corrugated paper. Two kinds are supplied—for mice (1s. 6d. per tube retail) and for rats (2s. 6d. each); there are also large tubes holding six times the quantity of virus to retail at 8s. The virus is in such demand among Messrs. Evans Lescher's customers that they are scarcely able to keep up the supply.

#### AN OPTICAL WINDOW.

In search of high-class window-attractions for the optician I called at the warehouse of Messrs. Raphael, Wheway & Redfern, Ltd., 51 Clerkenwell Road, E.C. "Suppose," I said to the salesman, "I wish to make a display in my shop-window of optical goods while maintaining the high-class character of my pharmacy, what could you suggest?" I had not long to wait, I was conducted to part of the showroom where are kept all sorts of window-attractions. A set of twelve different lenses, each on a little stand and suitably labelled, was shown me. The difference between cylinders and sphericals is well shown, and customers would perhaps have a higher opinion of their optician if they could in this way be brought to realise that minute and inappreciable difference in lenses make all the difference between comfort and discomfort to the wearer of spectacles. Model eyes are another good way of conveying the object-lesson of careful sight-testing, dissectable and solid models being supplied in considerable variety. Show crystals and blocks of glass are intended to manifest the clearness of the glass used for spectacle-lenses, and in some cases to demon-

strate the greater coolness of quartz. The latter substance can also be had in sections to show the process of manufacture and the meaning of "axis-cut pebble." A series of very neat window-tablets, 5 inches by 3 inches, with suitable wording, would not be out of place in a chemist's window; and a few gold-filled pince-nez frames, especially some of the more delicate varieties, would do much to reconcile and familiarise the public to the use of sight-aids. I also suggest radiometers and test-charts as suitable for the optical window—in fact, there is no lack of suitable show-objects for those who can spare a little space in their window for optical goods.

#### ARE VERMIN-KILLERS IN PART 1 OR PART 2?

In neither from one point of view; that is, the one Mr. F. C. J. Bird, of Messrs. Harker, Stagg & Morgan, Ltd., gave me when I called at Laurence Pountney Lane, E.C., the other day. He told me "Rat-virus (Laroche)," which his firm have put on the market, is a culture of a *Diplococcus*, and microbes and their products are not on the Poison Schedule. This bacillus under the microscope is like two black dots, and for raticide purposes is grown in nutrient gelatin, whereby it yields its virulence to the medium, which is then preserved in sealed glass tubes of about 3-oz. capacity, each tube containing about 1 oz. Packed as it is under approved conditions this virus retains its maximum potency for about four weeks, and each tube is labelled with the date of its manufacture, so that purchasers may use it within the potent period; but if it has gone beyond the stated period of efficacy, it may be exchanged. The method of using this virus for the extermination of rats and mice is as follows:

Dissolve 30 grains (about half a teaspoonful) of common salt in 1 pint of cold water, and for each tube of virus take 4 fl. oz. (one-fifth of a pint) of this saline solution. Scrape off the wax from the sealed end of the tube of virus, and remove the cork. Half-fill the tube with saline solution, replace the cork, and agitate vigorously until the solidified gelatin in the tube is detached and reduced to small particles. Then pour the contents of the tube into a basin, and, having replaced the cork in the tube, further divide the gelatin by lightly rubbing it between the cork and the bottom of the basin, using the tube as a handle. When the gelatin is finely divided, add the remainder of the saline solution and mix thoroughly. This mixture forms the infectious broth and is sufficient in which to soak about  $\frac{1}{2}$  lb. of bread. If more virus is required, then 4 oz. of saline solution and 8 oz. of bread must be taken for each additional tube.

The effect of the virus is not seen until the fifteenth day, when the unlucky rat, or mouse, develops septicæmia and infects its neighbours. A peculiarity of the bacillus is that it appears to be selective. It is only fatal to rodents, and fowls, cats, dogs, hares, and rabbits absorb it with impunity. The virus has the effect of drying up the carcass of the animal, and there is no unpleasant smell. Mr. Bird informed me that he has had personal experience of its efficacy. The premises in Laurence Pountney Lane (quite close to the river, and in a place where rodents have lived since Cæsar was in London) were overrun with mice some time ago, but the distribution of three tubes of virus has caused a total disappearance of the vermin. The retail price of the virus is 2s. 6d. per tube, and the price gives a comfortable profit to the retailer.

#### COUNTER-SPECIALITIES.

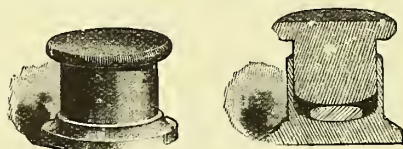
I came away from a visit to Messrs. Davy Hill & Co., 64 Park Street, Southwark, S.E., laden with samples of their newer counter-specialities, which I have since examined at my leisure. Taking first the toilet-articles, "Frozen Foam," or consolidated essence of witch-hazel, is a preparation for cooling and softening the skin in the form of a cream. It does not contain any fat or casein, and the proportion of witch-hazel, judging from physical characters, is considerable. Violet-powder put up in a new form of card canister is a neat article for chemists' trade, the violet-powder having the true orris and bergamot odour. Nursery hair-lotion and pomade are two other products which are put up in good style. The cork of the lotion is leather-capped, and I note that the label describes the lotion as non-poisonous. One-solution hair-dye is another article which in these "too-old-at-forty" days should have a good sale. I think that chemists are inclined to neglect oppor-



tunities of selling hair-dyes; the trade is being deflected to the *coiffeur*. Perhaps the diffidence in recommending a hair-dye arises from the knowledge that untoward results as regards unexpected colours have been known to develop after using chemical dyes, which seems to show the advantage of selling a brand that has been arrived at after an experimental research on the action of chemical agents on hair. Leaving toilet-articles, the next thing that demands my attention is the "Blue Finch" eucalyptus oil, for which Messrs. Davy Hill & Co. are the wholesale agents. The aroma of the oil is all that can be desired. I have also in my samples some physic-balls for horses. The balls are black and coated, and have the names of the ball and the vendor printed in gold. Tablets of ammoniated quinine are a seasonable line. These are put up in flat bottles, and the tablets give unmistakable evidence of their ammoniated nature as soon as the cork is removed. It only remains to note the smelling-salts, put up in globe-stoppered green bottles, in which a new base is used that retains the ammonia better than some of the older varieties. The whole of these specialities for chemists' sale are supplied with the name of the seller printed on the label. A new list, giving prices and illustrations of the various articles, is to be ready this week, and subscribers should see that they get a copy.

#### HOUGHTONS, THE WHOLESALEERS.

I borrow this title from the latest of the publications of Houghtons, Ltd., 88 and 89 High Holborn, W.C. Considerable activity is being displayed by this company, and I was surprised to find that already the new patterns of cameras for 1905 are decided on, and, what is more, listed and stocked. This note will be a reminder that the dealer should see the new camera-list, the "Planet" and "Tudor" series being patterns of cameras that now see the light for the first time. A useful little pamphlet, en-



TABLET-CRUSHER.

titled "Some Photographic Novelties of the Month," is commenced with the new year, and is a booklet intended to be distributed to amateur photographers by dealers. It should be good for business. This month's novelties are a handy tablet-crusher, some cheap print-albums, a flexible print-album, a negative-posting box, and a shilling dark-room lamp. It will be agreed that this is a very good start for the new year, especially when it is taken into account that there are also some dozen new or improved cameras.

#### A VISIT TO LEICESTER.

gave me the opportunity of looking in on various well-known wholesale houses. There are few pharmacists who know not Messrs. John Richardson & Sons (Leicester), Ltd., so I interviewed Mr. Stroud and Mr. Lewis Ough at the palatial building in Friar Lane, and talked of many things pharmaceutical. The burden of our conversation was trade depression during the past year, but a decided revival, it was agreed, had set in. Mr. Stroud was by no means pessimistic about things. His company had during the past year had a very fair share, he considered, of the business that was going, and to strenuous Shire men—"a fair share" means a good deal. Moreover, the year had begun very well, and Admiralty contracts which lapsed at the end of 1904 had been continued until March 31, when, it was hoped, new contracts would be entered into. Mr. Ough, who is head of the laboratory and works-manager, finds himself so occupied and his responsibilities so increased that he is unable to do any of the pharmaceutical research-work he is so fond of. Mr. Stroud, who is secretary of the company, complains of the cutting in prices that is becoming more acute (especially with London houses) as time goes on. But Richardsons, he says, are still able to meet it, and their wide connection with medical men has given them an assured position in wholesale drug-circles.

Within a stone's throw almost of Richardson's I discovered what will probably be the

#### FINEST RETAIL PHARMACY

in the country. It is the new three-storey building erected in the High Street by Messrs. T. E. Butler, Son & Co. I unearthed Mr. J. A. Butler in the old premises at Sanvey Gate, and he took me all over the establishment. Before entering we inspected the exterior, which is strikingly handsome. The pilasters are artistic designs in Doulton ware, highly glazed and coloured. On the front, high up, are two decorative panels, one representing an alchemist in skull-cap and gown, his beakers and mortars by his side. The alchemist is a striking reproduction of the late Mr. T. E. Butler, founder of the firm, whose death we recorded in our issue of December 10 (p. 957). Below this is another panel with the representation of a ship in full sail on a breezy blue, and the legend "Sea-breeze"—the popular saline invented by Mr. Butler. The ship is Mr. Butler's trade-mark, and a model in gilt surmounts the art-metal weathercock over the dome of the building. The principal entrance is at the corner, and in the middle of the hall, so to speak, there is a bent-glass showcase which bisects the path inwards. The interior "lives up to" the promise of the exterior. The fittings are in solid mahogany throughout, with a profusion of electric lighting and a wealth of display-cases. Mr. Butler is very pleased with the way the shop-fitters (Messrs. Parnall & Sons, Ltd., of Bristol) have done their work. A model dispensing department is situated near by the prescription-desk, and everything has been thoughtfully planned and arranged to make it, as Mr. Butler aspires to do, "the finest genuine chemist's business in the country." A separate entrance is provided for wholesale orders, and for oils, drysalteries and so forth. There is large storage accommodation in the basement. The general offices are behind the main shop, and are entered from a side street. Above are special rooms for patent medicines, foods, sundries, surgical instruments, and Mr. Butler's private office. There is a room set apart solely for the preparation of "Sea-breeze." A quaint coming-tower on the top floor has two large red-globed electric lamps and will prove an attraction from afar by night. The top floor is to be used as a drying and bottle room; indeed, a special feature of the construction is that every part of the building appears to have been utilised to its fullest extent. Mr. Butler reckons that by the time everything is finished it will have cost him 12,000l.

In his cosy offices at St. James' Street, Humberstone Gate, I had a pleasant chat with Mr. T. Howard Lloyd, of T. Howard Lloyd & Co., the well-known manufacturing chemists and wholesale druggists. Mr. Howard Lloyd had also a tale to tell

#### OF BETTER BUSINESS

in the New Year. His firm has recently imported from America three new machines for pill-making, which, he said, were probably unique in this country. These machines are so wonderful in their mechanical ingenuity that it is only necessary (with one of them at least) to put in a 2-lb. pill mass at one end and the finished pills, round or oval as desired, come out at the other end. The other two machines are smaller, but altogether these three machines enable Messrs. Howard Lloyd & Co. to turn out an enormous number of pills at a very rapid rate. The firm are also specially able to produce compressed tablets of all kinds in large quantities and at a low rate of cost. The veterinary portion of the business (which is already considerable) tends to increase, and several new counter specialities will be found in the new catalogue which will shortly be issued.

The pill-factory of the Wand Manufacturing Co. in the Haymarket is working at full pressure. It is situated in premises behind and above the principal retail shop of the company, and a

#### SNUG NEW OFFICE

for the principal has recently been added. The art of decoration in business houses appears to be a feature in Leicester, and Mr. Wand's new quarters come up to the latest requirements. Over a wainscoted fireplace there is a decorative panel with a portrait of the late Mr. Stephen Wand, founder of the business. The furnishings are in good taste, and an art-metal electric chandelier (with a suspicion of beaten silver in its composition) is specially attractive. The combination argues that profits lurk somewhere in the coated pills and compressed tablets that the fastidiousness of the present generation has induced.



## The Ideal Pharmacy.

Some Hints as to Fittings and Dispensing Conveniences.

By FRESHFIELD REYNOLDS, Pharmaceutical Chemist.



RESUMPTUOUSLY in no respect do I use the word "ideal" in connection with these thoughts about the arrangement of that environment in which we pass so great a part of our lives. It is not unnatural that, after spending therein close on fifty years, certain opinions have been formed in my mind relative to the arrangements of a pharmacy and the conduct of the work carried on in it. I suppose anyone having a real pride in his calling will find opinions thus formed gradually

assume the character of ideals, some of which it may be his lot to attain in a measure, while others, alas! still remain unapproached goals. Thus do I use the term "ideal pharmacy."

The semi-profession of pharmacy may be viewed from three principal standpoints—(1) the pharmacist's, as representative of his own and his family's interests; (2) that of his duty and responsibility to the public; and (3) that of his relationship to the medical profession. It will be admitted that the great bulk of pharmacists in England must reside upon the premises in which their business is also carried on, because most of us follow pharmacy as a means of gaining a livelihood, and the profits are not usually sufficient to keep up two establishments. Thus the pharmacy and the family home are mostly identical, and the personal interest becomes the dominant partner; but the honourable nature of our calling demands not unfrequently that the second and third standpoints shall take precedence over the first. For instance, one may have to refuse a profitable order on the ground of public safety, or one may decline to prescribe a remedy and advise the patients to consult a medical practitioner. In ideal pharmacy the man who consistently keeps a watch on the reasonable demands springing from each of the three considerations named will probably gain the esteem of his fellow-men, even if he fails to accumulate wealth. Ideal pharmacy cannot be considered altogether apart from those relations which should subsist between different members of the craft. In these days of somewhat fierce competition it may be difficult always to exclude some feeling of jealousy, or of suspicion of unfair dealing, but speaking broadly, I believe we lose nothing and gain much by cultivating a generous and accommodating spirit towards each other. I draw the line, however, at store-mongers and the like. I now come to the very heart of my subject, which is intimately bound up with the second and third standpoints. My own ideal of a modern pharmacy is one in which a large and varied stock is kept, not only of the best and newest drugs and chemicals and their compounds, but also of all kinds of surgical appliances, antiseptic dressings, sick-room and invalids' requisites, etc. In short, my aim would be to endeavour to anticipate and supply promptly all the demands of the physician, the surgeon, and the nurse in their efforts to ameliorate the sufferings of humanity. Of course, when I say *all* the demands there must be limitations. We may supply fluid beef, or extract of chicken, but draw the line at, say, mutton chops and poultry. Again, we may supply or let on hire water-beds and pillows, bedpans, etc., but decline an order for a suite of bedroom furniture. Now, such a large and varied stock requires space in which to display it, or at any rate to store it in such a way that it may be quickly produced for inspection, hence

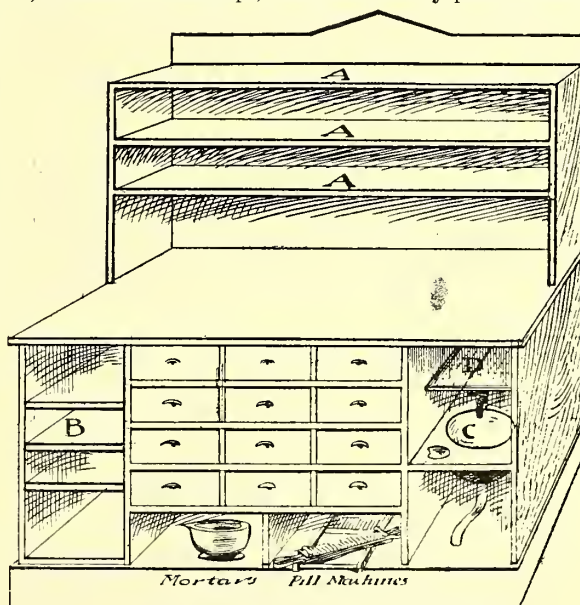
### THE FORM OF OUR PHARMACY

is of great importance. Before, however, going into internal arrangements, let us step outside a few moments and consider the external features of our premises, and the manner of our first appeal to the public for support. The outside appearance should be such as will be likely to attract, and not repel, passing people, who may be customers to-

morrow if not to-day. Cleanliness and a certain dignity of outline may always be secured. In the design for the shop-front account should be taken of the almost universal vandalism of our day, when every smoker of tobacco considers himself at liberty to spoil every doorpost, and every portion of a building within easy reach by striking lucifer matches thereon: thus he leaves his mark, but not his signature. Now, to combat this villainy, and that of the school-boy who cuts his initials on your mahogany window-frames, I would suggest the use of glazed tiles for the front of the building—say, to the top of the windows. Suitable colours may easily be had. The name-plates may also be carried out in the same materials (set in iron frames). The surface of these tiles is so smooth and highly glazed as to resist Hooliganism, and it only requires washing to keep it always clean and bright. The front of the premises generally should suggest the idea that the inmates are people of some culture and taste. As to the window-display, personally I like to keep the old symbols of the craft to the front—meaning thereby carboys of coloured liquids, and specie-jars—but, besides these, I have always found carefully dressed windows decidedly remunerative. In a town like Harrogate, frequented by large numbers of invalids, the best way of attracting customers I believe to be the window-display of what they are likely to want. But if a man does not intend to keep his windows well dressed and, above all, clean, then by all means put up a wire blind or glass screen to hide the nakedness of the land. Dirty sponges and cobwebs may do in an old curiosity shop, or suggest the thought that Noah had specimens of sponges in the Ark, and that some of them have been preserved by chemists until the present day; but do such things convey to the passer-by the impression that the presiding genius inside is a man of orderly and methodical habits?

### WALK INSIDE THE PHARMACY.

Whatever its shape or size, the first impression should be, "Here is a well-kept, clean and orderly place of busi-



DISPENSING-COUNTER.

- A, A, Shelves for 2-oz. and 4-oz. bottles of mostly used drugs.  
B, Cupboard made as a small lift to be lowered on to the end of sink in cellar for washing mortars, etc. C, Wash-basin with water laid on. D, Perforated Drainer, set back, to drain Measures, etc.

ness. Somebody bestows time and thought upon its arrangements, and somebody promptly appears to attend

F







have plenty of good glass cases and plenty of drawers of different sizes and depths away from the serving-counter, in the centre of the shop or on the opposite side to the counter; you can then show your customer numberless articles for invalids' use without interference with the working-counter; A more private corner or separate office should be provided for showing some articles, and for the fitting of trusses, elastic stockings, etc. My theory is that invalids are very shy, and will often not ask for a thing unless there is some indication that you are likely to be able to supply their wants; hence I say show what you have in stock with all due care for decorum.

#### DUSTING.

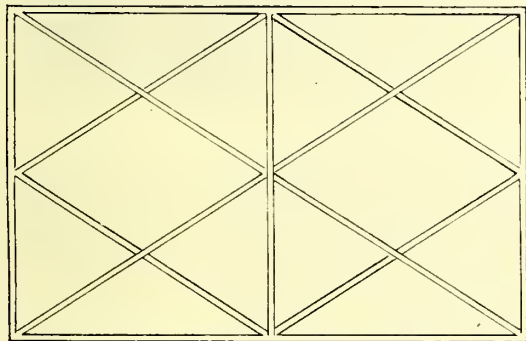
I love a duster, and to use it daily—ay, and many times a day if needed—is one of the grand secrets of a well-kept pharmacy. Remember what Robert Burns sang in one of his more sober moments:

O wad some power the giftie gie us  
Tae see oursels as ithers see us.

Therefore, my friend with the duster, pass round the counter to the spot where the customers usually stand, cast your open eye in all directions, noting any wicked bottle with the dust of ages (*i.e.*, yesterday's) on its shoulders, or with label casting sheep's eyes to right or left; or do you "espy strangers" (as they say in the House of Commons) in the shape of cobwebs? Then make haste to put all things right.

#### STORAGE-ROOM

of some kind we must have, and for wet drugs, and even powders in bottles, a good cellar has many advantages on account of its even temperature, and the absence of strong daylight, which may act on many substances injuriously. Electric light is now generally available, and is easily switched on and off. Dry storage is often more difficult to provide adjacent to the shop. A cellar I saw years ago had one admirable feature—the bottle compartments were divided into diamond shaped partitions; hence the stacks of bottles as they were drawn from were not liable to fall row



Cellar-wall divided by wooden compartments for storing bottles. Taking all shapes into account there is less breakage than with flat shelves: as each row is removed there is less falling of one row on another.

upon row. A two-faced central cellar-fixture saves space also, giving twice the frontage of a wall-fixture.

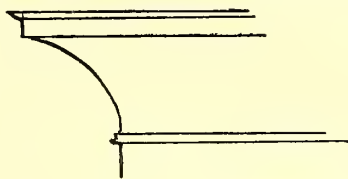
Heating-apparatus for hot water or steam placed in the cellar enables you to heat all parts from one point, with less expense, labour, and dust than open fires occasion.

#### LABORATORY.

Whatever the character of our business may be, it is almost certain that some place must be provided where processes can be conducted away from the shop; those, for instance, involving the evolution of much steam or noxious vapours, the powdering and sifting of drugs, etc. I think it was Joseph Ince who said in one of his lectures that "he had great faith in a man and a pan, provided the one had brains and the other capacity." [This of course meant that a capable man could do many things well with simple appliances. It is instructive to read the lives of John Dalton and of Michael Faraday to understand how true this is.] If ideal pharmacy involves making our own preparations as far as is practicable and consistent with commercial economics, we must have such a place, and we must equip it according to our requirements.

#### GENERAL REMARKS.

In designing shop-fixtures it is important to bear in mind that on surfaces pointing upwards dust collects, and the same is true of pierced woodwork; hence let your fixtures face downwards. The sketch of the top of wall fixtures



shows what I mean. The drawers under the counter are often in a separate case and pushed under the counter-tops; the back of the casing being thin, mice gnaw through it, get over the back of the drawer, and spoil the contents. To prevent this let the case be covered with sheet iron or zinc before it is put into position.

The counter-top should project well over in front, so as to prevent children from kicking the front of the counter. The use of amber-coloured bottles for shop-bottles with recess labels is probably not sufficiently in vogue, and it is a question whether our bottles are not often too large, considering the length of time some preparations remain on the shelves, exposed to full light and the summer temperature of the shop. Bottles with measures attached to the stoppers are most convenient for essence of lemon, essence of peppermint, eucalyptus oil, and similar strong-smelling liquids, and save much guessing of quantities and washing up of measures. Ribbed actinic-green shop-bottles are admirably adapted for poisons, revealing by touch the nature of their contents. Shop-jars are often the most conspicuous objects in a pharmacy. It adds much to the artistic effect if the colour of the background of the fixture is chosen with proper regard to the colour of the jars. The back of your wall-fixtures looks well when covered with lincrusta, and painted a suitable shade. A word as to the usual drawers below the bottle-shelves. It will often be found that they contain things which are very rarely wanted. If one has a good dry store-room, why not have nests of drawers there, perhaps only numbered or lettered, and a list of the contents hung close by? Then the shop-drawers or the space now occupied by them could be used to greater advantage for put-up stock, etc. A cupboard divided into pigeon-holes is very useful for keeping reserve stocks of put-up goods.

#### STYLE IN PHARMACY.

A painting, however superb, gains much in effect by being well and suitably framed; a book, however valuable as an intellectual medium, will not be less, but more, valued if it is well bound; even an accomplished lady is not less appreciated if she is well dressed. Just so you will find in pharmacy: style is not thrown away as a rule. The term does not necessarily include any expensive outlay upon non-essentials, although in a high-class business such things are often much appreciated. Style must depend upon the appreciative capacity of your public. Shakespeare's character who said, "Throw physic to the dogs," would not have given that advice perhaps had the medicines been dispensed *à la mode*, or the pills skilfully coated; otherwise the ecclesiastics of his time might have excommunicated him from the rites of the Church for setting at naught the scriptural injunction (at least in spirit), "Cast not your pearls before swine." As to style, let us imagine two bottles of medicine prepared from the same prescription by two different men. No. 1 is neatly wrapped in good paper and carefully addressed on the outside. Remove the wrapper: the label is put on straight, its edges nicely trimmed; the directions, name, and reference neatly and legibly written, and agreeing with the text of the prescription. Turn up the bottle: there is no dirt in the punting, or between the lettering at the back. Hold the bottle between your eye and the light: the contents do not show the presence of bits of straw, or black specks from a badly finished cork-end. No salts are undissolved which ought to be in solution. In short, here we find at every stage evidence of care and exactness on the part of the dispenser, and confidence is estab-



lished. Now turn to No. 2. It is slovenly wrapped up in poor paper; the name scrawled on it. Remove the wrapper: the bottle is a poor, cheap affair, bulging out at the sides; the punting is dirty, the label all awry and badly written. There is a floating straw or two. The cork snaps off in your hand, and its end emits black dust. There are undissolved lumps of, say, sodii bicarb. which should be in solution. "Throw it to the dogs!" With all my heart, sirs. You may pursue the same kind of inquiry through every item that issues from the dispensing-counter with similar results. Do we want to combat the store company competition? The strongest weapons in our armoury, in my opinion, are the best quality both of materials and workmanship—i.e., style—and *personal magnetism*, which is only another way of saying, "Inspire confidence in your personality, and, this done, there is little to fear."

#### ADVERTISING.

Competition in all walks of life is keen in our days, and the business-man cannot always avoid the use of tools which, handled unwisely, may injure others, and even wound the user's hand. Advertisement is just such a tool. You wish to inform the public that you are one Jones, a pharmacist. Very good, but why claim to be "the only Jones" or the only pharmacist? It is an age of shouting and the din of commercial strife, truly, but the kind of advertisement which calls to mind the crafty showman's style of "Short's your friend, not Codlin," or the more ancient sarcasm "No doubt but ye are the people, and wisdom shall die with you," is surely out of harmony with the *noblesse oblige* of pharmacy. Have you discovered an excellent pill for scouring the human drainage system? Quite so; but why advertise it as also safe against an earthquake or a South American revolution?

### Adulterated Lemon-grass Oil.

By ERNEST J. PARRY.

SHIPMENTS of lemon-grass oil have arrived in this country recently which are somewhat peculiar in odour, but which show all the physical characters of pure oil. I examined several of the earlier samples of these as they arrived, but was unable to determine what the adulterant was. The amount is small, as the solubility of the oil is normal, except that the solution of 1 volume of oil in 3 volumes of 70-per-cent. alcohol becomes cloudy, when slightly cooled, much more rapidly than is the case with pure samples. A sample of a later shipment has now been examined, which contains so much of the adulterant that it is practically identifiable by the nose alone. Its odour is that of a mixture of lemongrass and citronella oils, and on examination the presence of citronella oil was confirmed in the following manner:

The oil had a specific gravity of 0.901 and an optical rotation of  $-5^\circ$  (calculated from a solution in alcohol, as the oil was too dark for a direct observation). The refractive index at  $20^\circ$  was 1.4835. On absorption by sodium bisulphite the apparent citral value was 62 per cent., but this included the absorbed aldehydes from the citronella oil as well as the citral. The unabsorbed portion was examined, and compared with the unabsorbed portion on treatment of a pure oil with sodium bisulphite. The chief difference to be noticed here was that the residue from the pure oil had a characteristic sweet odour, recalling the geraniol esters, while that from the adulterated oil was of a more typical geraniol odour. The physical characters gave no information, but an acetylation and saponification showed that the adulterated oil contained much more free alcohols than the pure oil. I do not give the figures, as the amount of oil upon which I was able to work renders them only approximate.

The aldehydes were separated from 30 c.c. of the oil and recovered by decomposing the bisulphite compound and steam-distilling the liberated aldehydes. The specific gravity of the aldehydes was only 0.886, and the refractive index 1.4789. The figures for citronellal and citral are as follows:

Citral	...	...	0.897	1.4861
Citronellal	...	...	0.854	1.4481

I attempted to prepare the naphtho-cinchonic-acid compound, which I have repeatedly prepared in a pure state from pure citral, melting sharply at  $198^\circ$  to  $199^\circ$ , with the greatest ease. In the present case although crystals were obtained they had quite irregular melting-points, altering in a most erratic manner on successive recrystallisations. There is a difference of about  $25^\circ$  in the melting-points of the citral and citronellal compounds, which easily accounts for this result. I have not further examined the samples which were adulterated to only a slight extent, but I have no doubt that they, too, were adulterated with citronella oil, but to a much smaller extent than the sample which I have completely examined, which probably contained at least 50 per cent. of citronella oil, judging from its insolubility, together with the indications obtained from the above results.

#### An Heraldic Device.

A SUBSCRIBER has given us an old drawing, of which the following is a reproduction:



No information is sent as to the origin of the device, which appears to be a satire on the apothecary. One supporter is obviously the apothecary's boy with his medicine-basket, but the other is rather more difficult to recognise. He might be either the apothecary himself in caricature, or a porter in a wholesale drug-warehouse. The quarterings are amusing—medicine-bottle, balance, leeches, pill-boxes, scissors, lancet, saw, blister, clysters, and coffin. The motto, "Non sine sanguine," supports the presumption that the drawing is meant to caricature the old-fashioned blood-letting apothecary.

#### From other Climes.



A Native Doctor Divining in Bibe, Angola, Portuguese East Africa.

(From a snapshot by a C. & D. Subscriber there.)



## A Glimpse of Catalonia.

In which its Topographical and Botanical Features are Described.

By JAS. W. WHITE, F.L.S

FROM the nineteen days that could alone be spared for our Balearic trip last August, out and home, we had reserved two in order that a brief visit might be made to the region of Montserrat, thirty or forty miles inland from Barcelona; a spot celebrated for some extraordinary geological and botanical features, and for the great Benedictine monastery founded on it in honour of a famous image many centuries ago. And it is because I feel convinced that it is well worth a journey to Spain only to see what we saw in those two days that I attempt the present sketch.

To arrive by sea is by far the most pleasant way of gaining an impression of the big commercial port that has been termed the Liverpool of Spain. Soon after sunrise I had the good fortune to discover that it was quite unnecessary to maintain the horizontal posture, and the moment this truth became apparent I came on deck, to find our vessel pointing to Barcelona Harbour, now clearly visible in the fresh morning air. Beyond question the site of the city is magnificent; the view of coast and harbour extremely fine. Ships carrying the flags of all nations are loading and unloading, and the great fortress of Montjuich, nearly a thousand feet high, like another Gibraltar, guards the whole. Some fine purple hills open up in the distance, and if factories and chimneys remind one that this is a Manchester or Liverpool of the South, no dismal fog or smoke obscures the sky. The sun's rays light up the city, reddening the roofs of the buildings and gilding the masts of vessels moored in the harbour and the commanding figure of Columbus, whose statue, on the top of a tall column, points with outstretched arm over the sea. On landing one passes under this monument to a quay lined with ornamental arches and a row of palms.

Turning towards the town, the fine boulevard that stretches away into a far perspective is the Rambla de Flores—one of the historic streets of Europe, and the centre of all movement in Barcelona. It is a triple thoroughfare. On

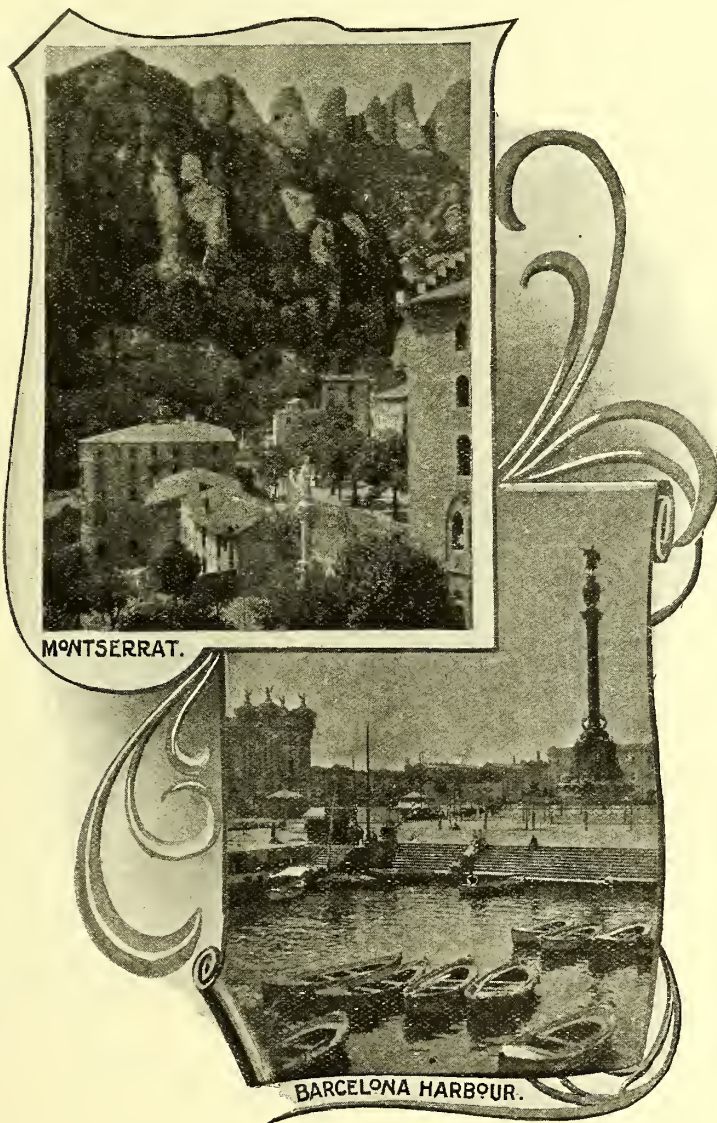
the outer sides are tramways and wheeled traffic; the middle is occupied by a gravelled promenade shaded by rows of tall plane-trees, now in full leaf and almost meeting overhead. It was pleasant to watch the dancing shadows under foot, and to revel in the cool green tones of the foliage around.

Although so early, we are soon jostled about in a whirl and bustle. It is always so in the Rambla. Up and down, all the while, moved an animated crowd which very largely looked as if it had nothing particular to do. Among the rest are many well-dressed women, walking with the ineffable Spanish grace of movement, and holding fans over their faces to screen them from the glare. On each side, under the trees, are rows of flower-stalls overflowing with blossoms that delight the eye and render the air heavy with perfume. Roses, carnations, lilies, and verberna are heaped side by side with fruit—grapes, pomegranates, pears, and melons, all in profusion. It was all so unlike anything to be found at home—a scene of Southern splendour—everywhere sunshine, beauty of form, variety of costume, and glow of colour. We sit at a little table outside a café and breakfast on the pavement. Here at one's elbow the traffic is dense enough, with trams, carriages, and huge-wheeled ponderous carts, for any commercial town one knows. This close

mingling of listless luxury with business activity is characteristic of Barcelona. The atmosphere, as of many places similarly shut in between hill-ranges and the sea, feels steamy, relaxing, and unhealthy. We had neither time nor inclination to make a stay in such a climate during the middle of August. Our desire was for a cooler and more bracing spot, where it might be possible to breathe freely a purer air, and that would surely be found

### ON THE HEIGHTS OF MONTSERRAT.

So away we went under the influence of a glorious morning. After some twenty miles of rail, the wonderful outline of "Mons Serratus" began to show up. Its ridge of fantastic





peaks and pinnacles, sharply defined against a clear sky, is indeed as toothed and jagged as a saw. The mountain is an isolated grey mass of conglomerate or pudding-stone, about 4,000 feet high and more than twenty miles in circumference, crowned with an infinite number of quaintly pointed summits, conical, needle-shaped, or like gigantic bolsters and rolling-pins set on end, with smooth, rounded, unclimbable surfaces. The intervening rifts and fissures are filled with the verdure of box-trees, pines, and evergreen shrubs; while the detritus that accumulates is an excellent vegetative soil, and nourishes more than six hundred species of plants. The mountain, however, owes its chief celebrity not to its unique appearance, but to the monastery, founded in 880, upon a platform half way up, and to the thirteen hermitages formerly perched in almost inaccessible positions, which formed a *via crucis* or *scala celi*. In 1811 the French, under Suchet, plundered the abbey, burned the library, shot the hermits, and hanged the monks who had been guilty of patriotism in sheltering their own countrymen. Napoleon's soldiers did not stick at trifles. The stronghold suffered again in the Carlist war of 1827. Although there survived human hearts strong enough to support without despair those terrible reverses, and to remain steadfast, yet the great shrine thus lost much of its old wealth and glory; and the eighty thousand pilgrims who once visited it annually are now represented by a far smaller number.

At length—for even on a Spanish railway one arrives sometimes—the train drew up at Monistrol, where we left the main line for a smaller one that crosses the intervening river and then winds up into the mountain. Instead of labouring for hours on the old zigzag carriage-road up which horses used to toil and struggle, the whole ascent was over in forty minutes; and it was good to feel that all that hard work is now done mechanically. As our open-sided carriage climbed steadily up the steep incline, which was often a mere ledge on the face of a precipice—perpendicular cliff above and an abyss below—some new and strange plants began to keep us company, taking advantage of a little earth in crevices of the rock, or loose stones at the edge of the line. Conspicuous among these were two hardy umbellifers with entire leaves and strong woody stems, belonging to *Bupleurum*, the Hare's-ear genus. Their specific names, *fruticasus* and *fruticescens*, indicate the shrubby character they possess in common. The former is the more handsome and larger species, attaining a height of 6 feet, and both are abundant. A third member of this group (*B. angulosum*), a sub-alpine Pyrenean species, was also gathered at a higher elevation.

The cog-wheel railway and the high road both end at a little station under the walls of the monastery. No buildings could be more romantically placed. The monastery, with its church and dependencies, stands on a terrace or platform a few acres in extent, at the edge of a chasm on the eastern face of the mountain, and overlooking a vast plain. At the back a screen of wild and precipitous peaks rises sheer to a prodigious height. Through the plain below, now scorched and sterile, the river Llobregat winds a serpentine course as far as the eye can reach. Monistrol, Monresa, and other towns lie scattered here and there, and the background of this grand tableau is formed by the sea and the Pyrenees blended together with the sky.

Now that the railway has brought Montserrat into closer touch with the outer world much of its romance has disappeared. To accommodate the increased influx of visitors immense prison-like buildings have been erected, said to contain a thousand rooms. These are allotted to all comers for two or three nights without charge, although each visitor is expected to give a donation to the common fund. In summer the place is crowded with pseudo-pilgrims, who bring their families from the hot plains to spend a few hours or days breathing mountain air, at little expense, among wonderful surroundings. At the date of our visit not one of the thousand rooms was vacant. On inquiry at the *despacho*, we were politely told that we must sleep at one of the inns lower down the mountain, and we proceeded thither later. But we got an excellent *déjeuner* at the monastery restaurant. The food and service were equal to any offered in the towns, and the wine—a fine Burgundy character—was the best that had been set before us in either France or Spain.

The afternoon was occupied with a ramble amid fine

scenery to a ruined hermitage placed in a lofty solitary spot from which the views were splendid. On these heights vegetation was fresh and luxuriant, in striking contrast with the arid plain below, in which the eye could only catch at remote intervals some green patches of cultivation where vineyards lay. Among the rocks near our path grew

#### SOME RARE AND CHARACTERISTIC PLANTS.

The finely coloured bells of *Campanula speciosa* were not infrequent, but their beauty had attracted so many passers-by that nearly every plant had been plucked and damaged. A shrubby bedstraw (*Galium frutescens*), only known in Spain, was a good prize, and a still better one accompanied it—a handsome hawkweed (*Hieracium Lychnitis*). Unlike most members of that perplexing genus, this plant has a strong well-marked individuality. It is unknown elsewhere in the wide world. Among other Peninsular rarities, two species of *Jasonia* (*J. saxatilis* and *J. tuberosa*)—humble composites—were overshadowed by huge specimens of our British carline-thistle, now almost withered. On our way back we encountered one of the fathers, well equipped with vasculum and butterfly-net. Noting our own boxes, he introduced himself as a brother-botanist, and proved to be well acquainted with all forms of life upon the mountain. He told us that for some years he had been endeavouring, by his own effort, to form a natural-history museum for Montserrat; and we gladly accepted his offer to show us his collections in the morning after service. The day was now wearing to a close. Darkness comes on quickly in the South. We watched the shadows gathering over the vast sun-baked valley and distant horizon after a glorious sunset; and, turning down the road to find a night's rest below, felt thankful not to herd with countless goats tinkling home in clouds of dust, as is the way of them at evening on most hills in the South. All grazing creatures evidently knew that there was nothing worth the name of pasture on Montserrat.

Early the next morning we started back up the hill in a rattletrap sort of omnibus and again reached the monastery in time for service. Almost buried in the face of a precipice is

#### THE MAGNIFICENT CHURCH.

its interior gorgeous with gilding and stained glass. High up, enshrined in splendour above the high altar, its rich screen of curtains drawn aside during part of the ceremonies, we saw Nuestra Señora de Montserrat, Patrona de Cataluña—the little black image of the Virgin said to have been carved by St. Luke and brought to Spain by St. Peter. This is the great thing to see at Montserrat—"la Moreneta, como se llama en Cataluña"—the sacred treasure that founded the monastery, blessed by many popes, solemnly crowned by Leo XIII., visited by kings and princes, and deeply revered, as the author of countless miracles, by millions of pilgrims throughout the Christian era. What wonder that legends, traditions, and all the mystic elements of emotional romance have gathered here during so many centuries; and that fame, wealth, and honours have been heaped upon the spot! It was all very impressive. One could only conjecture what the scene was like in the old days, amid all the rude grandeur of the most picturesque ages in the world's history, when a worshipper might look on bishops and celebrants in mitred pomp, great lords and knights in varied armour, and listen to the song of more than a hundred monks and choristers. Then thousands of precious stones flashed in the light of the hundred and ten lamps of massive silver that burnt before the altar, with its priceless vessels and crucifixes of gold and ivory, and there hung around all the flags and banners captured at the great sea-fight of Lepanto. One of the Virgin's crowns alone contained 2,500 emeralds.

The *funcion* ended, the crimson hangings were replaced, and we went to meet our friend

#### THE KINDLY PADRE.

He led the way to his den on a third or fourth floor; a room containing all the paraphernalia of a naturalist—dried plants well preserved and mounted on papers bearing the imprint "Flora Montserratina," butterflies, beetles,



shells, etc., all neatly prepared and labelled. These were local collections of merit, and evidenced much knowledge and industry. Father Marcet opened his drying-press too, a rather cumbrous contrivance of oaken boards and straps, with which he seemed much pleased, for several times he alluded to it as "un beau modèle." Among his recent gatherings were some sprigs of a juniper bearing two forms of leaves—the upper ones scale-like and imbricate, the others acicular—and thus seeming to combine the characters of two sections of the genus. Our friend introduced this as a most curious hybrid. We ourselves looked on it as a very interesting discovery, and were glad to meet with a bush later in the day. Not until many weeks afterwards did we find out that this was merely *Juniperus Sabina*. The story says little for my knowledge of the older materia medica, yet it may be pointed out that most of the Continental floras do not mention the leaf-peculiarity, and Woodville's figure does not show it. Only in Koch and Gremli do I find a clear description.

It was a misfortune that we had to hurry, but time would not allow an inspection of the library and other interesting things that were pressed upon our notice by this good priest, whose earnest and sincere manner was very charming; so with many thanks and compliments we departed, and set our faces toward the summit of the mountain.

The rough, steep track led up a fissure between two towering pinnacles of rock—a sort of cleft full of fallen stones and thick brushwood of box, laurustinus, scrub-oak, and juniper. It was a laborious climb into the bosom of that mountain. Emerging on some open ground above, we struck an old path that connected the scattered hermitages. In following this we were led along a ledge on the face of a huge buttress of conglomerate—a ledge that had been widened here and there in old times by excavating the rock. About the middle of this traverse we came upon

#### A TINY RESTAURANT,

partly sheltered in a cave and in part supported on beams over the precipice. Here we rested and enjoyed the view from a low, clean, airy room, with tidy furniture, wherein a few Spaniards of the humbler sort were sitting. An omelette with bread, salad, and fruit made us a refreshing midday meal. The other visitors indulged in a national dish that savoured strongly of oil and garlic; but from that breezy perch unpleasant odours were soon wafted. In these small *ventas* wine is served in curious glass decanters with long slender spouts that spring from the base of the vessel. When drinking it is *de rigueur* not to touch the spout with the mouth, but to catch a stream, thin as a goose-quill, between the lips when the decanter is tilted almost at arm's length. The natives were doing this without spilling a drop, but my clumsy attempts in imitation aroused great merriment, for the good white wine would spirt over my nose and chin rather than enter the wide chasm that thirsted for it. Every spectator vied good-humouredly in showing how the thing ought to be done, but skill begotten of lifelong practice was not to be acquired offhand, and I had to come down to a tumbler. Water, too, delightfully fresh and cool, in big earthen bottles, is drunk in the same way, at the distance of a foot or so, from a small nozzle in the shoulder.

Squeezing out through a narrow doorway at the far end of this hostelry, we continued along the narrow ledge by a little water-cistern hollowed in the rock, and some wire-netted caverns containing scraggy fowls, until the buttress ended in a chink or chimney between two peaks, up which there was another scramble to the top. There

#### A NEW WORLD OPENED BEFORE US

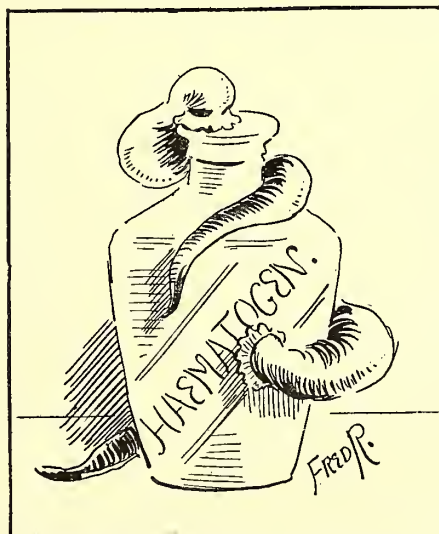
from a small plateau on which we stood among the topmost crags of the mountain. Huge masses of rock appeared rising far and near over a wide expanse—bare, stern, savage, and yet beautiful from the unusual shapes in which Nature had fashioned them. Towers, columns, and domes, all smooth and rounded in outline, all finely mottled with pearl-grey and red, rose one behind the other—a multitude of sun-burnt peaks and steep declivities, slippery and unscaleable, varied in detail yet alike in general characteristics. There was no trace of animal life, or of pasture to sustain it. Only in some deep and narrow fissures or *barrancos*, as they

are called, a few bushes and stunted trees could be seen peeping forth, and a large bird of prey swept slowly overhead. Altogether the scene was one of loneliness and melancholy, yet the fresh, bracing air and bright sun—no longer scorching—gave one vigour and elasticity. Beyond and around, in the clear atmosphere, the eye could wander over the whole of Catalonia. Close beside us could be traced some ruined walls and a broken-down enclosure. A chapel or hermitage stood there of old; now weeds grow rankly among broken slabs that are likely enough to hide the bones of the slain anchorite who was wont to bend the knee above them. The hardy recluse who meditated in this inaccessible eyrie of the rocks, where there is nothing to remind of man or of man's work—nothing else but rock and sky—might well have felt secure in such a resting-place, believing that repose and calm would ever reign, trouble and danger never come. His fate lies at our feet, a tragic sacrifice to "the devilish passions of men."

On the face of the nearest precipice grows a botanical treasure—an endemic saxifrage (*S. catalaunica*). There is plenty of it, and we only want a little, but that little is hard to get. Not without risk two or three rosettes are hooked up on the crook of an umbrella. It is otherwise with a plant of equal rarity, *Erodium supracanum*, whose strong roots have taken hold in many a crevice, often in fellowship with the smallest species of *Globularia* (*G. nana*) and an onion (*Allium fallax*.)

The ridge of Montserrat can be reached in several other places, but the summits do not differ much in height. The one we climbed comes second in point of altitude. From it we had to return by the same track, for there was no other way down. On the descent we gathered more rare plants and made many a halt, gazing on the grey-brown world below and taking in impressions not soon to be forgotten. It was evening when we joined the last train at the monastery station on our return to ordinary life, and near midnight when we lay down in noisy Barcelona. Spain strikes one as a land of singular contrasts. The ugly and the beautiful are never far apart. It is not strange that the city's turmoil grated on us; that the railway, with its dirt, smoke, and racket, was an abomination. But nothing else now remained for many fatiguing hours. True, we escaped for a brief while to peep at beautiful Gerona—brave, old, quaint, desolate Gerona—and breathed comfortably in the cool shadow of its deep arcades. We stood on its bridge, too, in a glare of sun and dust, to marvel at the river-street of tall houses—broad-eaved, green-shuttered, full of balconies, flower-pots, and strings of many-coloured rags and tatters—all reflected in the glancing water at their feet; and then went on our way homeward through the great realm of France.

#### 'Sblood !



Leeches: "How I should like to be there!"



## Diseases of the Scalp and Beard.

### Hints as to their Nature and Treatment.

By MEDICO-PHARMACEUTICUS.

**D**ISEASES of the scalp and beard are among the commonest affections for which the pharmacist's advice is sought: the public have an impression that they are not serious enough to warrant the calling in of medical advice, and yet, trivial as some of them are, from the point of view of general health, they are most annoying to the patient, and a source of great discredit to the medical adviser who fails to diagnose, and treat accordingly. In most of them, if a correct diagnosis is made, the treatment is comparatively easy, although it has frequently to be somewhat prolonged. Among scalp-diseases the commonest are seborrhœa or dandruff, ringworm, impetigo contagiosa, favus, pediculosis, and alopecia areata.

#### SEBORRHŒA CAPITIS.

In its mild form of dandruff this affection is well known. The affection is not so common in children as in adults, and in children if any decided scaliness of the scalp is found ringworm should at once be thought of (*vide infra*). It should also be remembered that a neglected dandruff frequently produces a general inflammation not only of the scalp, but also of the face and body (seborrhœic dermatitis), and that the treatment of the face and body condition is made much easier by the previous cure of the scalp-condition. The treatment of mild forms is simple and effective: the head should be washed frequently with a fluid soap made by mixing two parts of *sapo mollis*, B.P., with one part of rectified spirit, suitably perfumed, washing with plenty of warm soft water afterwards, so as to free the scalp from any trace of the soap. The following ointment should then be well rubbed into the scalp:

Sulphuris præcipitati	...	...	gr. xv.
Acidi salicylici	...	...	gr. xv.
Paraffini mollis	...	...	3j. Misce.

If greasy applications are disliked the following lotion may be substituted. It is equally efficacious:

Acidi salicylici	...	...	3ij.
Olei ricini	...	...	3iij.
Spt. coloniensis	...	...	3j.
Spt. vini rectificat. ad	...	...	3vj. Misce.

To be sprinkled over the head from a sprinkler bottle and well brushed in, or sprayed into the roots of the hair.

In both cases the essential thing to impress on the patient is that the medicament must reach the scalp, and that it is not enough simply to rub it over the hair. If the affection has spread to the face or trunk the same applications may be used, but if a large surface is affected they should be weaker, and it should be remembered that salicylic acid when rubbed in over a large surface may be absorbed and cause toxic symptoms. In very chronic cases I have found the following lotion extremely useful:

Sulphuris præcipitati	...	...	3iv.
Glycerini	...	...	3ij.
Aquam ad	...	...	3iv. Misce.

To be daubed into the roots of the hair with a shaving-brush, after the head has been washed with the fluid soap. It should be left on for a day or two, and the head again washed, the process being repeated as often as necessary.

Some cases are extremely refractory and liable to constant relapses: in these great perseverance is necessary for a complete cure to be effected. As seborrhœa is now looked upon as one of the most common causes of premature baldness, it should not be difficult to impress customers with the necessity for patience and persistence. Most dermatologists regard the disease as bacterial in origin, the specific microbe being the *Morococcus* of Unna, an organism which takes its name from its occurring in mulberry-like masses. This sets up an inflammatory process in the sebaceous glands, which leads to increased and perverted secretion, accompanied by excessive formation of the scales which form the horny layer of the skin. Salicylic acid acts by removing the excess of horny layer, and sulphur acts as a bactericide.

**TINEA TONSURANS, OR RINGWORM OF THE SCALP,** is in this country generally caused by the fungus known as *Microsporon Audouini*. The disease manifests itself as

small, more or less circular patches partly denuded of hair, the hairs that are left in the patch presenting a typical twisted, bent, and "stubby" appearance. The skin of the patch is usually scaly, and there may or may not be the red ring which one associates with ringworm in other situations. If one of the diseased hairs be pulled out and mounted in a drop of liq. potassæ, the filaments and spores of the fungus may be seen ensheathing the hair. The air-bubbles often found in hairs must not be confounded with spores. In doubtful cases, and in cases where the microscope is relied upon for diagnosis, it is advisable to dip the hair in ether, stain for fifteen minutes in a 5-per-cent. solution of carbolic acid and gentian violet, immerse for a few minutes in Gram's solution, and mount in a drop of aniline oil which has been coloured to a light brown with iodine. The disease is practically confined to children under fifteen, and is sometimes so troublesome to cure completely that some dermatologists will never give a certificate that a child is free from it, limiting themselves to the statement that they cannot find any trace of it. It usually dies out about puberty even if untreated. The best way to find if a scalp is cured is to rub over the suspicious places with a little chloroform on cotton wool, when any diseased hairs remaining will appear white.

**Treatment.**—Numerous methods have been recommended for the cure of ringworm of the scalp. Some of the drugs used, such as iodine, croton oil, and chrysarobin, act indirectly by stimulating the tissues and so enabling them to throw off the disease; others, such as sulphur, salicylic acid, carbolic acid, and mercurials, act directly as fungicides. Unless the case can be kept under very careful observation the treatment had better be confined to the latter class; a very effective ointment may be made up as follows:

Sulphuris præcipitati	...	...	3ss.
Hydrargyri ammoniati	...	...	3ss.
Acidi salicylici	...	...	gr. xx.
Adipis lanæ	...	...	3ss.
Paraffini mollis	...	...	3ss. Misce.

The hair should be cut round the diseased patches, the diseased hairs in sight pulled out, and the ointment *rubbed well in* for ten minutes twice daily: the scalp should be well washed with warm water and some anti-septic soap twice a week. It is essential that the rubbing-in process be thorough, and it may be necessary in very persistent cases to shave the whole scalp—indeed, some eminent authorities decline to treat a case unless this is done preliminary to treatment: it materially lessens the period of cure and enables every focus of disease to be seen and watched. Months of treatment may be necessary before a cure is effected, and it is as well to warn the child's parents of this beforehand, giving them the choice of shaving as tending to a more rapid cure. They should also be warned to keep towels, combs, etc., specially for the patient, as the disease is extremely infectious, and much more easily prevented than cured.

#### TINEA BARBÆ, OR RINGWORM OF THE BEARD,

may show itself as the usual ringed patch so familiar on the skin, in which case the diagnosis and cure are fairly easy; or the disease may have penetrated more deeply, in which case we have swollen, red, nodular, and painful areas, which, if they have become infected with pus-producing organisms, may show pustulation and be difficult to distinguish from sycosis (*vide infra*). The distinction is best made by trying to pull out some hairs on the infected patch, when it will be found that the ringworm-infected hairs come out quite readily, while in the other case they do not. The treatment of the nodular form consists in pulling out all the hairs on the infected patch with a pair of epilating forceps, and rubbing in ung. cupri oleat. 10 per cent. In the milder ringed form epilation may be dispensed with and a rapid cure usually effected with ung. hydrarg. ammon.



## ALOPECIA AREATA.

This disease is characterised by a falling-out of the hair from areas on the scalp, or, indeed, anywhere on the body; the bald spots first developed may increase in size and number until the whole scalp, or even the whole body, is denuded: its cause has long been a subject of dispute among specialists, and is not yet by any means settled. The nervous system, the ringworm fungus, bacteria, have all been made responsible by equally eminent specialists, but the evidence for a specific bacterial origin seems to be accumulating—the most striking, perhaps, being the epidemics which have on one or two occasions broken out in girls' schools after the introduction of a pupil suffering from the disease. The diagnosis is easily made, from the round patches, the smooth skin, the absence of evidence of ringworm, and the presence at the borders, or even in the patches, of hairs like a point of exclamation.

*Treatment.*—In young people any treatment, whether antiseptic or stimulating, will probably be effective, as the disease in many cases tends to cure itself, although the period of cure can be materially lessened by treatment. After forty, on the other hand, the prognosis is extremely bad. The wonderful testimonials which makers of hair-restorers obtain in favour of their wares owe their existence mainly to alopecia areata of the young and to the falling-out of the hair which is one of the symptoms of secondary syphilis, as both conditions tend to get better whatever the treatment; *post hoc ergo propter hoc*. The following two prescriptions will probably be found the most useful for general practice:

Acidi lactici	...	...	...	3iij.
Olei ricini	...	...	...	3ij.
Aq. lavandulæ	...	...	...	3ss.
Spt. vini rect. ad	...	...	...	3iv. Misce.

This should be rubbed into the bald places very gently at first, but more vigorously as the scalp gets accustomed to it.

Liq. ammon. fort.	...	...	...	3ss.
Chloroformi	...	...	...	3ss.
Ol. olivæ	...	...	...	3ss.
Spt. rosmarini ad	...	...	...	3iv. Misce.

This also should be rubbed in cautiously until the scalp gets accustomed to the application. Ung. sulphuris and mercuric chloride ( $\frac{1}{2}$  to 2 per cent. in S.V.R.) have their adherents, but the last must be used cautiously on large surfaces on account of the risk of absorption. Any general condition of ill-health apparent in the patient must of course be treated at the same time. It sometimes takes a year or two before the hair grows in again, and, of course, it grows patchy until it is all long enough to be trimmed, with slight variations in colour.

## IMPETIGO CONTAGIOSA.

This disease is common on the face, upper limbs, and scalp, of children: when it first comes under observation it is seen as patches of honey-yellow crusts. It is extremely infectious, and has been variously known as "scrum-pox," "football-itch" and "run-around." It is now believed to be caused by a streptococcus, which first produces little blisters on the skin; these blisters rapidly become pustules from secondary infection with the staphylococci which normally inhabit the skin, and the pustules in turn dry up to form the crusts which are the distinctive feature of the disease. If untreated it tends to spread indefinitely, but, fortunately, it is quite easily checked: the crusts must first be got rid of either by soaking with oil, or, better, by the use of a boricised starch poultice. After their removal the following ointment should be rubbed in several times a day, the head being well washed after a few days of this treatment:

Hydrargyri ammoniati	...	...	gr. v.
Paraffini mollis	...	...	3j. Misce.

This ointment is much more effective than one stronger in mercury. The starch poultice is made as follows:

Mix one teaspoonful of boric acid with four tablespoonfuls of cold-water starch; make into a paste with cold water, then pour in one pint of boiling water. When cold spread thickly on calico, cover with muslin, and apply, renewing every two hours.

The same treatment applies to impetigo of the beard.

## PEDICULOSIS CAPITIS

is the name given to the condition of the scalp produced by the ravages of the *Pediculus capitis*. In bad cases masses of crusts are found and the hair is matted; the crusts are distinguished from those of impetigo by their being more continuous, and by their dirty greenish colour. The pediculi and their ova are generally pretty much in evidence, the latter to be distinguished from the scales of dandruff by the fact that they are firmly glued to the hairs. The condition is generally most marked on the back of the head, and may give rise to enlarged glands at the back of the neck or even in front of the ear. If the glands are not actually suppurating they generally subside with the cure of the condition, and for this purpose there is nothing so effective as common paraffin oil (suitably coloured and perfumed). Even if the scalp is in a very irritable condition it is astonishing how well it tolerates this apparently heroic remedy; the whole scalp and hair should be well soaked in the oil, and a bathing-cap worn for a night, the head being well washed with soft soap and warm water the following morning, the patient being of course warned to keep away from lights while under treatment. It may be necessary to treat a second time, but after the first treatment, if all the nits have not been removed, they may be loosened by sponging with a lotion of acetic acid 1 in 4 and the hair then combed with a small-tooth comb.

## FAVUS.

This disease of the hair-follicles and hair is caused by a fungus known as *Achorion Schonleinii*. It is much more common in Scotland and France than in England, where it is somewhat rare. Cats and mice are said to be responsible for its spread. It appears on the scalp as little sulphur-yellow cups or scutula; the affected head has a mousy smell. It is, unless taken very early, extremely difficult to cure, and the first essential to treatment is to pull out all the affected hairs, afterwards applying a 10-per-cent. oleate-of-copper ointment, or the following ointment:

Cupri sulphatis	...	...	...	5j.
Lanolini	...	...	...	3iij.
Vaselini	...	...	...	3ss. Misce.

The method of epilation resorted to nowadays is by exposure to the x rays, which causes all the diseased hairs to fall out in a few weeks, the disease being then much more readily cured by the ointments mentioned.

## SYCOSIS

is a disease of the beard region which is characterised by the appearance of pustules around the hair-follicles: it is not to be confused with the old sycosis menti, which is ringworm of the beard. It appears to be caused by a particularly virulent strain of staphylococcus, communicated by a dirty razor or shaving-brush. It is distinguished from ringworm by the fact that in the latter there are the deep nodules mentioned above, with hair growing on them which is easily pulled out. Impetigo generally develops more rapidly, and the crusts are distinctive. The disease is most persistent and frequently requires prolonged treatment. The first question to decide is whether the patient is to shave or not, and on this point authorities differ. If the irritation is very great, it is probably better to clip the beard close, but, on the whole, if the patient is sufficiently heroic, a quicker cure will be effected if shaving is persisted in. All hairs surrounded by pustules should be pulled out, and an antiseptic ointment rubbed well in: the sulphur and ammoniated mercury ointment recommended for ringworm answers well, or 10-per-cent. copper oleate may be used, or the following:

Ung. hydrarg. nit.	...	...	...	5j.
Ung. zinci	...	...	...	3j. Misce.

The use of x rays to effect epilation, before the application of ointments, shortens the treatment materially, but there is often a very considerable reaction, and the greatest care has therefore to be observed. Very obstinate cases sometimes yield to blistering with liq. epispasticus, or to double strength liq. hydrarg. perchlor., which also may produce blistering. The beard should not be allowed to grow for at least a year after all trace of the disease has disappeared, or it will most certainly return.



## The Olive-oil Industry on the Italian Riviera.

A Visit to the Gardens and Mills, with Notes on the Oil Trade.

By ERNEST M. MELLOR.

THE cultivation of the olive is carried on extensively on the Riviera, and the dark-green foliage of the tree is one of the characteristic features of the landscape of this coast. At San Remo a considerable trade is done in the oil, and though it is particularly to this district that the following remarks apply, they may be taken as typical of the entire coastline from the frontier to Genoa. A few miles inland runs the chain of the Ligurian Alps. These send down a succession of spurs that jut out into the sea in rocky, oftentimes precipitous capes, between which lie beautiful valleys, watered by numberless streams, whose sides are clothed with olive-groves interspersed with vineyards, while the more favoured spots are devoted to lemon, orange, and other fruit trees. The work of planting the olives has been, and is, no light occupation. Similar ground would in England be given over to a few sheep. Here, however, what must formerly have been barren hillsides rise in a succession of terraces laboriously built up of the stone that is present in abundance, the scanty soil being utilised to its fullest capacity. When the trees have been planted, and are of sufficient age to bear fruit, the trouble is not finished. To get the best results the whole of the ground should be carefully dug over each year, in order that in time of rain the moisture should be readily absorbed, for often the rainfall is so small that every drop is precious. This entails so much expense that it is frequently done only once in three or four years. The flowers are unobtrusive, tiny white balls, and appear about May. Generally some of the olives are ready to be gathered about October, and from that time onward there is, in good years, a continuous yield of fruit until the principal harvest, about April or May, though olives may be seen occasionally on the trees up to the end of June, or even in July. Periodical visits are paid to pick up the olives that fall from the trees.

### GATHERING THE FRUIT.

The manner in which the fruit is gathered when well matured at the end of the season is shown in the first photograph, which was taken on Good Friday, 1904. Two



GATHERING OLIVES.

peasants, armed with rods about 10 or 12 feet in length, can be seen in one of the trees knocking down the olives, the ripe fruit, which is very similar in appearance to a small damson, falling on to a sheet spread to receive it. There is a belief that to touch the earth spoils the fruit, and the

olives gathered off the sheets fetch a higher price at the mill than those picked off the ground. A moment's reflection shows that there is a very good reason underlying this; for those picked off the ground are of very mixed quality, owing to the inclusion of both the newly fallen fruit and that fallen in the cause of nature, possibly half ripe or worm-eaten, and which has been lying on the earth for some time. Women assist largely in the work of picking up the fruit and putting it in baskets or sacks for carrying away. In the photograph the manner in which the ground is terraced may be seen, though at this point the hillside was not nearly as steep as usual.

### THE MILLS AND THE CROP.

After the olives have been gathered they are taken, generally on mule-back, to one of the many little mills which are to be found near the torrents, and which, though they are gradually giving place to larger and better equipped factories near the principal centres, still turn out in the aggregate a great quantity of oil, and are making a brave struggle for existence, as befits an industry that has been carried on for centuries. In order to see the time-honoured, if old-fashioned, methods by which they work, I paid a visit to one in a little valley lying some miles from the coast. Leaving the town, the road wound steeply up the hillside until a considerable height was reached, then ascended more gradually, sending out small paths on each side, up or down, as the case might be, to the houses scattered among the olive-woods. At my back lay the Mediterranean, while away up the valley the mountains rose to an altitude of over 4,000 feet. Passing a countryman, I stopped to exchange greetings, and he replied, in answer to my remark, "Yes, it is beautiful weather, but I am miserable. It is nearly a year since the olives have been wet," referring to the drought that has spoiled this season's crops. He was right. Whereas this time last year the trees were loaded with fine fruit, this year there is hardly any to be seen, and what there is poor and small, and dropping off the trees unripe for lack of nourishment. Still, the countrypeople expected this, for last season they prophesied a shortage in this season's crop, as they never expect two good years together, there being so many circumstances, such as temperature, moisture, and freedom from disease, that must be favourable, in order that the trees may yield a prolific supply. A mild winter often is the forerunner of a bad season, as the insects and flies do not get killed, and so attack the flowers and young fruit, which fall worm-eaten the following summer and autumn, as has been the case in the year just ended. Now, however (January), a spell of cold weather of unwonted severity is being experienced, and so the chances for the season 1905-6 will be much better on this head.

Among the olive-groves the absence of bird-life is immediately noted by an Englishman, and the reason is not far to seek. While we were walking along the road our conversation was interrupted by the report of a gun followed immediately by the sound of the shot striking a tree a few yards away. It was merely one of the numerous "cacciatori"—that is, men out with a gun for a day's sport, which consists of shooting all and sundry birds that happen to be in sight. Nothing is too small, and all eventually find their way to the dinner-table, where a dish of small birds, looking like little trussed-up babies, served hot on a steaming mass of "polenta" is one of the delicacies of the country. It is not to be wondered at that flies and insects are numerous and the cause of much damage.

Presently the road began to ascend more sharply, and the valley to contract until it was little more than a ravine; still its water-carried sides were tilled wherever possible, and olive-trees flourished on terraces precariously built on the edge of a precipice. Then it widened again, and perched on its side, some hundreds of feet above my head, were the clustering houses of a little village. Just where the road came to an abrupt end, giving place to a narrow mule-path

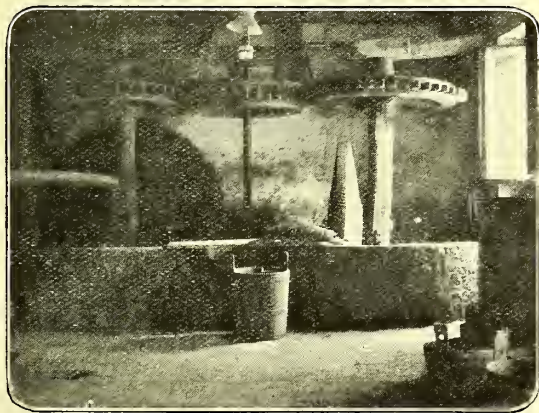


flung across the stream on a high-arched bridge, was the goal of my journey, the olive-mill. Immediately beyond, the torrent came tumbling down the mountain-side in a foaming cascade, fringed with pines to which at this height above sea-level the olives must now give place, and its waters, partially diverted, were brought along a narrow sinuous stone channel to work the wheels of the mill.

The miller buys the olives by measure from the country-people, who are generally their own landlords, owning small patches of "campagna" which they turn to good account. When the olives are ripe and healthy, a sack holding six dekalitres will fetch nine or ten lire, equivalent to about eight shillings, and will yield perhaps 15 kilos. of oil, which is sold by weight, and at the moment of writing is selling at 1.40 lire (about 1s. 2d.) per kilo.

#### MILLING AND PRESSING.

The first process is easily followed by the help of the second photograph (the exposure for which, using a "Sanderson" camera, "Beck" lens, aperture F8, and "Barnet Special Rapid" backed plate, was five minutes). By a simple gear-arrangement the motive-power from the over-



MILLS IN WHICH OLIVES ARE FIRST CRUSHED.

shot water-wheel is transferred to a perpendicular shaft furnished with a wooden cogwheel, which acts in turn on two others, also made of wood and of peculiar workmanship, as may be seen in the photograph. These are fastened to shafts to each of which is attached a large stone wheel set on end and revolving in a pan in just the same manner as the wheels of a mortar-mill. The olives are put into the



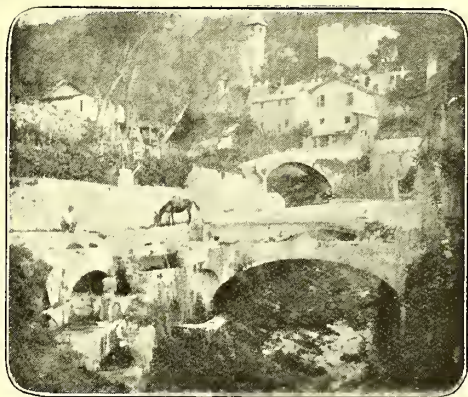
OLIVE-PRESSES.

shot water-wheel is transferred to a perpendicular shaft furnished with a wooden cogwheel, which acts in turn on two others, also made of wood and of peculiar workmanship, as may be seen in the photograph. These are fastened to shafts to each of which is attached a large stone wheel set on end and revolving in a pan in just the same manner as the wheels of a mortar-mill. The olives are put into the

pan in position, and the oil pressed out by means of the lever, which is worked by two men. At first nothing but pure oil comes out; this is caught by a tub placed in a well in front of the press, and is of the finest quality. As soon as it is seen that water is mixed with the oil, the tub is removed and another put in its place, the pressure afterwards being increased. In order to free this second lot of oil from impurities, it is placed in wide tubs and cold spring-water poured on it from a height of three or four feet, this being continued until the oil has been well washed, when it is carefully ladled off the top of the water, and, though not as fine as the oil first extracted, is still very good.

#### CLARIFYING THE OIL.

After being thoroughly pressed the "sportini" are removed and taken to the storey below. There, in semi-darkness, I found another mill similar to the one above, but with much thicker and heavier wheels. Here the residue is again crushed. Into the pans runs a constant stream of water, which carries away with it the skins of the olives, leaving the stones behind. From the pans the water runs into a series of stone tanks, from eight to ten in number, arranged in such a manner as to prevent the escape of the skins, which float on the surface, while the water, tinged as though it were the washings from a shambles, flows finally into the torrent-bed. The last photograph shows such a series of tanks, taken at another mill nearer the town. The water in this case is brought over the stream from the mill, which can just be seen on the right, by an old aqueduct. A mule that has just been relieved of its load of olives is



A SERIES OF TANKS IN WHICH THE OLIVE-STONES COLLECT (where the men are standing).

snatching a mouthful of grass, while its driver is chatting with a man who is collecting the olive-skins with a long ladle from the tanks below. The skins still contain oil, which does not escape owing to being congealed by the low temperature of the water. After being well washed, they are made into a rough paste with warm water, again packed into the "sportini," and pressed once more. The oil obtained in this way is of inferior quality, and sells as burning-oil. It is possible to extract still another lot, fitted for industrial purposes, from the marc by further treatment and the use of powerful machinery, but this is out of the question at the small mills. Even the stones are not wasted, as they are collected, dried, and sold for fuel, being used to make the bed for the wood fires that are the rule in this part of the world.

Generally the miller sells his different grades of oil to the merchants in the town, who purify and clarify it by filtration through cotton-wool. It is peculiar that the oil obtained from the hill villages is far superior in taste and flavour to that of the lower ground and keeps much better, remaining sweet even in this warm climate for two or three years. About forty thousand or more Italian quintals (roughly 4,000 tons) is shipped from San Remo during the year, and the price obtained is high, for almost all is good-quality edible oil; the first grade—and this forms the bulk—being among the best table-oil procurable. The town prides itself on its reputation in this respect, and any case of adulteration, if detected (and a sharp look-out is kept), would be very severely punished as being detrimental to the trade of the district.



## Showcards for Proprietaries.

Hints to Chemists and Druggists for Making Artistic and Cheap Designs.

**D**URING the past few years many owners of proprietary preparations have made use of window-displays with evident profit. Naturally this has had its influence on the mind of the chemist and we often see either whole or partial window-displays of "my own speciality," but it is questionable whether these have as much selling-power in them as in the shows made by large manufacturers. The flowers, ribbons, art muslins, etc., we can buy at any cheap draper's, but the showcards to point out why the public should buy are generally lacking. It is obviously quite impossible for the retailer, trying to create a sale for an article in his own shop only, to expend the large sum of money which the production of several lithographic showcards requires. The sets of large rubber type sold seemed at one time to meet the case, but even with great care it is scarcely possible to produce a notice without a ragged, home-made appearance, which tends to defeat its purpose. The difficulty may, however, be largely overcome, and the necessary number of telling cards prepared at moderate cost. Cheapness need not condemn the showcards, as an inspection of these seen in any pharmacy will show that the most expensively produced do not always bring the best results.

If one possesses skill with the brush, it is an easy matter to make a few broad water-colour sketches with a few words regarding the article advertised. Those not so gifted must have recourse to the professional ticket-writer. As the productions of these gentlemen seem to run in deep ruts, the following suggestions are offered for those who wish to have something different from the cards seen in the grocers', hosiers', and other shops.

One of the simplest methods of producing a number of similar cards consists in having the matter written on thin tracing paper. This is then used as a negative in the usual manner and may be reproduced by any photographic printing process. Ferroprussiate paper and glossy p.o.p. give excellent results (see fig. 1), while if wanted in a hurry any of the bromide or gaslight papers may be used, and if toned a pleasing variety of colours may be obtained. Carton tissue transferred to opal glass would give an everlasting, washable showcard in any desired colour. A dozen of these cards, say, half-plate size would undoubtedly assist the sale of the article displayed, and the total cost need not exceed 1s. 6d. or 2s.

Another method, which may be preferred by some, would be to have the original matter written on white card and copied in the camera. The resulting prints may be mounted as fancy dictates, but for counter use the writer prefers to have them mounted as opalines, because they do not then become soiled. A few such serve as a reminder to the customer for other goods, and so help to back up the window-display.

It is quite a simple matter to combine a photograph of a pretty face or something of local interest with the desired wording without producing a patchy appearance. Have the lettering done on a white card (not glossy) leaving a blank space of suitable size and shape. Make a negative from this in the camera. The space reserved for the view will of course remain white in the print, and by using a mask may be printed on. Fig. 2 is a reduced example of how to do it.

Pictorial postcards readily lend themselves to our purpose, and, judging from the crowds round the stationers' windows, the public are never tired of looking at them. It is, how-

ever, advisable to disguise the fact that they are postcards, and this is best done by mounting in a broad cut-out mount. A dark grey or green goes very well with bromide post-



FIG. 2.

cards and with lettering in white forms quite a dignified and effective showcard (see fig. 3). If the mount is constructed on the slip-in principle, the photograph may be changed every day, and thus lend variety to the display. In view of recent law cases it is advisable when photographs of actresses are used to see that there is no reference in the wording to the subject of the photograph. Should something larger than the postcard be desired, beautiful photographs of lovely women may be had from the Rotary Photo. Co. at very moderate prices. Photographs of the speciality itself may also be used. Those enlarged, and if necessary tinted to represent the original, should be as effective as the mammoth Hunyadi bottles.

In the drapery and fancy goods warehouses of large towns one often sees photogravures and prints resembling red carbons at very low prices. These latter generally depict girls' heads, and are particularly suited for toilet - specialities. If small, they may be treated as recommended for postcards, or, if large, may have the lettering done on the print. Some

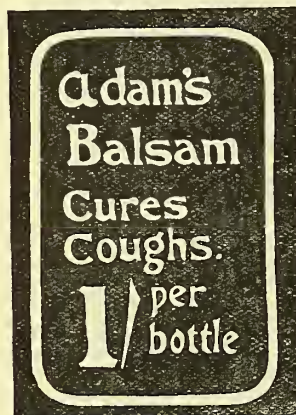


FIG. 1.



FIG. 3.



of them are in flat "oak" frames. The "oak" is palpably paper, but looks well through window-glass, and offers an excellent surface for bold lettering.

If the chemist has plenty of spare time, he may produce pretty tablets by mounting a piece of tinted paper as an opaline, tracing the lettering (reversed) on the back, and with a sharp knife cutting out the letters. A piece of crushed tinfoil tinted with an alcoholic solution of aniline (malachite green is very good) is placed behind the bare glass, and the whole kept together by the usual back and strut.

A sure method of inducing regular passers-by to look at the window is to get a frame and cut out mount, which may be lettered, large enough to hold a double page of the "Graphic" or "Illustrated London News." The back of the frame must not be nailed down, but should be kept in position by four small turn-battens. Into this frame put the most interesting or sensational picture of current events and change as frequently as the week's supply of interesting pictures permits. You will quickly find the great majority of regular passers stop to look at the picture, and if they do not notice the other articles in the window, that surely is the fault of the dresser.

The wording of a showcard should be most carefully thought out. It is the most concentrated form of advertising, and, as the space is necessarily limited, the words must go straight to the point. Long explanations may be given on handbills, but never on a showcard. If the article is recommended for many complaints, it is better to have a separate card for each, e.g.:

<b>NOSTRA</b> relieves <b>LUMBAGO.</b>	<b>NOSTRA</b> cures <b>HEADACHES</b> Instantly.	<b>NOSTRA</b> removes <b>RHEUMATISM.</b>
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Five or six of these together in a row are more effective than having all the disorders mentioned in one sweeping statement.

A word concerning the ticket-writer. Do not allow him to do as he pleases. If you wish a distinctive card, study the advertisement-pages of the *C. & D.*, and select therefrom the lettering, borders, etc., you prefer. The subject is by no means exhausted, but the hints given should suggest many other ways of utilising inexpensive material in the production of profit-bringing showcards.

## The Metric System.

By W. H. MARTINDALE, Ph.D.

AS briefly reported already, a meeting of the West Ham and District Chemists' Association was held at Earlham Hall, Forest Gate, E., on Thursday afternoon, January 12, Mr. J. H. Matthews, President, in the chair, when Dr. W. Harrison Martindale gave an address on the metric system. After a few words of introduction Dr. Martindale said:

I take it that what you really wish to discuss this afternoon is whether the metric system should be introduced compulsorily into this country. For my own part, and I have examined the points at issue from several aspects, I confess my answer is—by all means let us have the system, and the sooner the better. You are aware that the Weights and Measures (Metric System) Bill was introduced into the House of Lords in October, 1903, by Lord Belhaven and Stenton. It received due support from Lord Kelvin. It was backed ultimately by chambers of commerce, city, borough, and county councils throughout the country, by town corporations, by trade protection societies, individual merchants, retail trading associations, manufacturers, engineers, and by the whole of Scotland as represented by the Scottish Chambers of Agriculture and by the Highland Society, teachers' associations, inspectors of weights and measures, even chambers of agriculture and farmers' associations which might be acknowledged sleepy—in short, by the representatives of over 8,000,000 of our population.

On the second reading on February 23, 1904, the debate which took place forms, I think, more interesting reading than the majority of Parliamentary debates. Lords Rosebery, Tweedmouth, and Spencer spoke in terms very favourable to the Bill. It must be recollected that as far back as

1895 a Select Committee of the House of Commons recommended, after taking all the necessary evidence, that:

1. The metric system be at once legalised for all purposes.  
2. That it should be compulsory by Act of Parliament after two years.

3. The system be taught in all public elementary schools and that decimals should be introduced in the school curriculum earlier than is at present the case.

The first and third recommendations were acted upon, but the second is still *in statu quo* after ten years. This is certainly a typical example of what becomes of Committee recommendations. The Bill provides (and I should tell you that the Decimal Association has secured the promise of 330 M.P.s to vote in favour of it in the Commons) that from April 5, 1906, or date to be fixed, the metric standards shall be deemed imperial standards in substitution for existing standards. It shall be compulsory for every deed, contract, bargain, or sale in the United Kingdom. All references contained in any Act of Parliament in force at the commencement of this Act, or passed thereafter, to the imperial weights or measures now in force, shall be deemed to refer to the respective equivalents in the metric system. Schedules are given, and the wording is throughout perfectly simple.

On this second reading the Bill was referred to a Select Committee of the House of Lords for consideration. There it was revised to accord with a few recommendations of Government departments. It then passed its third reading on May 17, 1904, and was sent to the Commons. I should mention that so long ago as November, 1895, Mr. Balfour expressed himself to a deputation from chambers of commerce throughout the kingdom as being a firm believer in the advantages to be gained by the metric system, "which are quite impossible to associate with the arbitrary, perverse, and utterly irrational system under which we have all had the misfortune to be brought up." It must be recollected, also, that at the Coronation Colonial Conference in 1902 the Premiers of the self-governing colonies passed a resolution strongly in favour of the metric system. The governors of the different colonies (forty-six in all), at the request of the Colonial Secretary, reported, by far the greater majority, in favour of the system—I refer to the replies received by the Colonial Secretary up to February, 1904. New Zealand has gone so far as to legislate that from and after a date named by the Governor, being not sooner than January 1, 1906, the metric system shall be the only system of weights and measures recognised in her domains. The other colonies are really only waiting for the Mother Country to make the change. It is well known that if Great Britain and her colonies were to adopt the metric system the United States and Russia, the only other outstanding civilised nations, would soon follow, and the system would then become international. We must not forget that go-ahead little Japan, with, however, its teeming population of 42 millions, as against Germany's 52 millions and France's 38 millions, has the metric system. Judging from recent events this very fact would seem no small recommendation for us to follow suit.

MY REASONS FOR ADVOCATING THE SYSTEM ARE.

1. For the sake of simplicity.
2. For export commerce.
3. For the sake of pharmacy.

Taking the first category, I think you will agree that there could not be anything simpler than a decimal system of measures of length, measures of capacity, and measures of weight. To attempt to work out calculations under any other system involves considerably more thought and trouble. A decimal system already exists in countries representing 483 million souls—namely, the metric system. It is a curious fact that decimalisation is creeping into this country without the metric terms. For example, in many trades lengths of the inch are used; and the rainfall, you may notice, in the papers is given as, say, 4.68 inches. In the metric system all that has to be learnt for practical purposes is embodied in the three words, metre, litre, and kilogram. The yard is a very arbitrary standard. It is based on the fact that the pendulum which makes one oscillation in a mean second at London on the sea level is 39.13983 inches in length. The gallon, as you know, contains 277.274 cubic inches—not a very convenient figure to remember. The gallon of water at standard temperature weighs 10 lb.—this always strikes one as a fairly sensible piece of information, but the fact that a cubic inch of water weighs 252.5 grains not one in a thousand could tell you off-hand.

The metre, on the other hand, is claimed to be the ten-millionth part of the length of a quadrant of the meridian from either pole to the equator. The standard metre adopted by the International Committee for Weights and Measures is constructed of an alloy of 90 per cent. platinum and 10 per cent. iridium. The length of the seconds pendulum in latitude 45°, which is about that of Milan, is 0.9935 metre, and thus differs from a metre by only 6½ millimetres. The kilogram contains 1,000 grams, and is the weight of a cubic decimetre of water at 4° C. That is really all we want to know.



I think it would, therefore, be well to adopt this system, which is more rapid in use than barleycorns, inches, feet, yards, furlongs, fathoms, rods, poles, or perches—these are for length; minims, gills, pints, quarts, gallons, pecks, bushels, quarters—these for capacity; grains, carats, pennyweights, scruples, drachms with "ch" and drams without, two kinds of ounces, pounds, quarters, hundredweights, tons—these go for weight.

It must be admitted that a decimal system is more accurate than all this incongruous collection, in which, I might say, no one term is a simple multiple of another and of another again. It therefore strongly commends itself to mechanical engineers.

Why should we waste a child's youth by giving it tables to learn—tables difficult to remember at the time, and tedious to calculate sums in—when a year or more of this time could be more profitably spent? How many of us could now repeat all the tables we were forced to learn in our youth—more particularly the one dealing with rods, poles, or perches? Mathematics has been stated to be at a low ebb in this country, probably because of the distaste for arithmetic which is bred and borne from childhood.

Coming to the second point—namely, that of export, one has only to study the consular reports from all parts of the world to be convinced that metrical countries prefer to inter-trade rather than put up with the brain worry and loss of time and money entailed in converting quotations and invoices rendered in our system into their own. I cannot help thinking that those averse to the metric system—and there are many powerful ones, including Hicks-Beach and Ritchie, who will oppose in the Commons when the Bill comes up for reading—are in reality conceited, or, to say the least of it, imbued with that national opinion of self superiority which is one of the characteristics of every Britisher. The fact remains that the metric worker, say in France, Spain, or Italy, understands simply nothing of our system, and the competition of Germany, Japan, and other countries is affecting, and will affect still further, our export trade.

Several firms doing a considerable business with Spain and South America and other metric countries now print their catalogues both in terms of the imperial and metric systems. This is undoubtedly a step in the right direction—the direction, I mean, of plumping for metric terms. I will not burden you with details of consular reports, but writing from Milan the report is "Not one in a thousand understands your system"—result, the buyer passes to our neighbours. From Leghorn, "Would greatly tend to benefit English commerce. The adoption of the metric system can only be regarded as a matter of time." From Teneriffe, "This change, and others, must be accomplished unless we are willing to give up without a struggle our well-earned commercial and industrial supremacy." Competition must be met by new measures and methods, otherwise ground will be lost. We must not forget that a very large proportion of the South American trade in drugs now goes to Paris.

I will here interpolate some of the objections that have been raised to the system. One is that it would dislocate ordinary trading amongst the poor and uneducated. This is really a futile objection. If the poor of Germany, France, and so on could assimilate the system without raising an outcry or voicing a desire to return to the old system, I am convinced that our average working man would soon appreciate the new system—indeed I think he would enjoy the novelty. People say, "In spite of your metric system you still get your livre of apples in a Paris market street for a few sous." But don't you get in reality a half-kilo under the old name? If not—well, it really does not matter very much.

As to the third point, the Secretary of State for Foreign Affairs related at the second reading how a friend of his, whilst staying on the Continent, had sent a prescription given him by an English medical man to a chemist to be dispensed. The pills arrived, in due course, about the size of marbles. Shortly afterwards the chemist also arrived, breathless, to explain that his junior, who had made them up, did not know the difference between a grain and a gram. The bullets in question contained each 2 grams (about 30 grains) of calomel.

The convenience of the system in our own trade cannot be over estimated when we take into consideration rapid calculation, and hence freedom from likelihood of error; solids by weight, and liquids, of course, by measure.

At this point Dr. Martindale, referring to the alleged difficulty of getting metric bottles, exhibited a selection which he had imported specially. They were neatly finished, and in every respect handy and workmanlike—the sizes being 1,000, 500, 250, 200, 125, 100, 50, and 25 c.c. In prescribing and dispensing in such bottles it is well to bear in mind that

5 c.c. equals 1 teaspoon.

15 c.c. equals 3 teaspoons, or 1 tablespoon.

60 c.c. equals 12 teaspoons, or 4 tablespoons, or 1 wine-glassful.

250 c.c. equals 16 tablespoons (about), or 4 wineglasses, or 1 tumbler.

The 125, 200, and 250 c.c. sizes are employed for mixtures, or, where the patient is to have a lengthened treatment, the 500 c.c. size is requisite. The smaller sizes are used for drops and small quantities of lotions and liniments.

Dr. Martindale showed other metric examples, including the Decimal Association's decimetre measure, and proceeded to say: There has been a very amusing controversy running through recent numbers of the "B. M. J." Brigade-Surgeon Lieut.-Colonel Edward Nicholson wrote as follows:

"G. S. B." in a previous letter writes complaining of the endless variety of ways in which time is wasted in public health work by the British system, and he puts forward as instances two problems. It happens that either of them can be worked out in three minutes by anyone who knows his measures and a little arithmetic.

#### First Problem.

One hundred and ten barrels of beer have been made with 24 quarters 6 bushels of malt containing  $\frac{1}{160}$  grain of arsenic in each pound. How much arsenic is there in each gallon?

I assume that the malt weighed 40 lbs. to the bushel, and that the barrel is 36 gals.

$110 \times 36 = 3,960$  gals. of beer were made from  $24\frac{3}{4}$  quarters  $\times 8 = 198$  bushels of malt.

$\frac{3,960}{198} = 20$  gals. of beer from 1 bushel containing  $\frac{1}{160}$  or 0.4 grain arsenic. Each gallon therefore contains  $\frac{2}{25} = 0.02$ , or  $\frac{1}{50}$  grain of arsenic.

#### Second Problem.

One hundred thousand gallons of water pass in a certain time through a filter of 1 acre surface. What is the rate of percolation in inches?

The problem is simply the height of water in a basin of 1 acre. Now, everyone engaged in public health work should know that 1 inch of rain or other water on an acre equals 101 tons.

One ton of 2,240 lbs., or 224 gals.  $\times 101 = 22,624$  gals. for 1 inch.

$\frac{100,000}{22,624} = 4.42$  inches.

I fail to see any difficulty in the calculation of either problem, and it is because of the waste of time in doing them that "G. S. B." desires the abolition of our system of weights and measures.

(Signed),

EDWARD NICHOLSON.

The following is the reply from "G. S. B.":

Brigade-Surgeon-Lieutenant-Colonel Edward Nicholson's letter supports my contention. The two problems, as I said, were of the simplest kind. Brigade-Surgeon, etc., Nicholson, starting with the advantage of "knowing his measures"—*carrying in his head*, for example, that an acre of water at a level of 1 inch weighs  $101 \times 2,240$  lbs., that there are 36 gals. to the barrel, 8 bushels to the quarter, 4,840 square yards to the acre, and all the rest of it—took three minutes to calculate the answer in each case. A similar simple problem stated metrically—litres, kilogrammes, hectares—in either instance would have almost answered itself; there would have been no figures to remember, and practically no calculation to do.

It is characteristic of the British system, by the way, that Brigade-Surgeon-Lieutenant-Colonel Nicholson was obliged to make a guess in order to answer my first problem. There is the "quarter" as a measure of the bulk of malt or other grain. There is also the "quarter of malt" as a standard weight ( $8 \times 42 = 336$  lbs.). He assumed my "quarter" was the first of these; as a fact it was the second, the one usually employed in brewing transactions. The result which he obtained was consequently incorrect.

So you see the metric system came out top after all. In conclusion, I ought to tell you that there is a Decimal Association, the secretary of which will, I am sure, be most pleased to receive your support, either in your hearts and souls or from your pockets in the form of subscriptions. There is also a rival association to uphold the existing British weights and measures. I leave you to choose between the two.

Dr. Martindale, in replying to the discussion on his paper, quoted from a number of letters he had received that morning from manufacturers and merchants in various branches of trade, all but two being in favour of the metric system. There was also a letter from Mr. H. G. Wells and Mr. F. M. Hueffer, as follows:

It is obvious to anyone who has been abroad at all that the metric system, as used in France and Germany, is the only reasonable system, and it is difficult to imagine what can be said against it. Consequently it is difficult to meet the arguments of possible objectors. As long as England does not adopt the system, England remains to that extent outside the community of civilised nations. The change is bound to come—the only point is whether we are going to leave it so long on the road that when we do make it it will come too late, and we shall have lost all share in the organisation of international trade. We have personally come across, in our small way, instances of English firms losing profitable orders on the Continent owing to the incomprehensibility of English measures and the difficulty in reckoning up the prices from English catalogues. How much trade is lost in the year and over the world it is difficult to imagine, but the amount must be enormous. And the least intelligent person could get used to the new system in a month after adoption. Considering the ease of reckoning with the metric system, a great deal of time would be saved for ever after by using it.



## The Chemist in China.

Chiefly in regard to European Enterprise and Chinese Practice and Tendencies.

ONE of the most prevalent notions in the Occident is that the Chinese are not a civilised people. Perhaps this is because the white-skin races judge everything by their own standards, and Englishmen more than any other race occasionally assert themselves and their peculiarities so strongly as to make all other men imagine that Englishmen

place that European pharmacists hold in China. We have before us a small collection of notes from various sources, which will serve to illustrate the present position.

### AN ENGLISH VIEW.

Mr. H. B. Morgan, pharmaceutical chemist, formerly of Birkenhead and now connected with the hospital at Hang Chow, recently wrote home to the effect that pharmacy in the Celestial Empire is scarcely in an advanced stage. At places like Hong-Kong and Shanghai foreign chemists are fairly numerous, but at very few other cities can European prescriptions be prepared. In Hang Chow foreigners send to the hospital when they want a European prescription dispensed, as the head dispenser (a Chinaman) can manage any ordinary English prescription, and only refers to Mr. Morgan if the writing is more difficult than usual, or one written by French or German doctors should turn up.

There are in China no laws regulating the practice of medicine, and native doctors and drug-shops are numerous. Herb-stalls are also numerous. At one really very fine and large medicine-shop in Hang Chow, which is most handsomely furnished and decorated, a notice-board invites the public to walk inside and inspect the well-cared-for herd of deer—between twenty and thirty, kept in stalls. They make use of the horns and also their dung.

The best-known poison—opium excepted—is arsenic, and its sale is regulated by law. An illegal sale is punishable by strangulation of the unfortunate druggist, whilst should the sale be followed by an accident the penalty is increased, and he is beheaded. The result seems the same to the European, but the Chinaman condemned to the latter method of exit thinks of his headless spirit wandering eternally in the unseen kingdom, hence strangling is the more acceptable punishment.

Most medicine-shops in China put out a sign to the effect that on the 1st and 15th of each month a special discount of 10 per cent. will be allowed on everything purchased; and native doctors often only see patients on certain days: some every other day, some once in three days. Besides "regular practitioners" (though anyone may call himself a doctor, as no qualification is legally



MESSRS. A. S. WATSON & Co.'s PHARMACY IN CANTON.

This company's "chop" is the best known medicine trade-mark in China. They have done much to popularise European physic amongst the Chinese.

think themselves the salt of the earth. China's traditions and history go back beyond the Flood; her monarchy is the oldest in the world, her educational system was in existence before Julius Caesar landed on the shores of Britain, and the most learned man of the world at the present time is a Chinese. It would be wrong to say that the intellectual of China return our indifference with contempt, because they scarcely dream of it being worthy of that trouble; an amused curiosity at the Western's presumption is, perhaps, the best expression of their feelings towards us, and they are by no means so bigoted in regard to all that is Chinese as to neglect entirely the improvements that we can show upon their methods. This is eminently true of medicine and pharmacy, the Chinese practice of which is so ancient as to amount to superstition, yet necessarily it embraces so much real experience that the old things—which we cast away only to bring back again when modern science has proved their utility and modern pharmacy has imparted elegance to them consonant with the spirit of the times—have remained with them as something more than arcana. A recent writer in "Chambers's Journal" has made a striking commentary on the skill of Chinese physicians by telling of the success of those of them who are resident in San Francisco and have large practices amongst the Americans as well as their own expatriated countrymen. But it is the appreciation of the Chinese for European physic that is the subject of this article, and the



THE DOORWAY OF MESSRS. WATSON'S CANTON PHARMACY, Showing the Staff, with English Manager and Chinese Assistants.

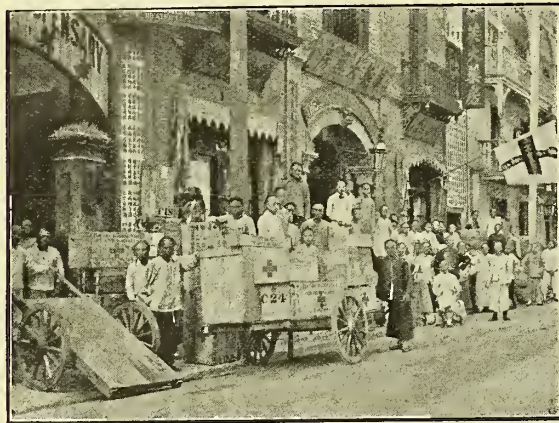
needed), there are itinerant medicine men who travel from town to town, often leading a camel with them as a kind of attraction and advertisement.

### CHINESE CHEMISTS.

The consumption of European medicines in China is enormous. Mr. E. Magnus, a German apotheker, who has spent several years in Shanghai, writing some time ago to

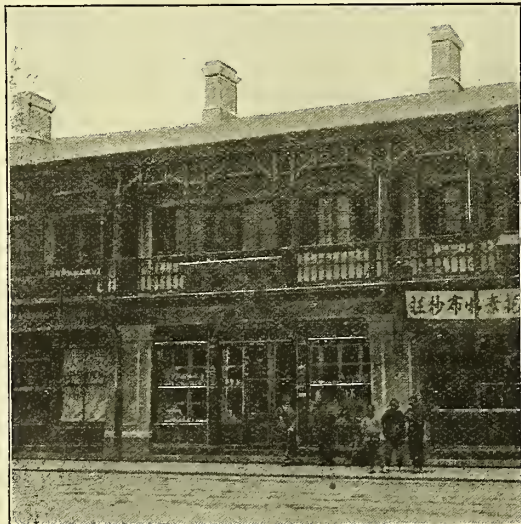


the "Pharmaceutische Zeitung," stated that although the inhabitants of the great walled cities still stick to Chinese physic, elsewhere, and especially amongst those who have come in contact with Europeans, the demand for modern medicines is almost past belief, and we think there can be no better evidence of this than the fact that enterprising Chinamen are starting in business as European chemists.



THE SHANGHAI DISPENSARY (MR. J. D. CHANG'S).

Some of them read THE CHEMIST AND DRUGGIST regularly, and amongst them is Mr. J. D. Chang, of the Shanghai Dispensary, 524 Foochow Road, Shanghai, whose headquarters are shown in the next picture, which is from a photograph taken on August 12, 1904, when Mr. Chang was despatching 96 cases and packages of medical requirements for the use of the International Red Cross Society in Manchuria. It was an eleven thousand dollars order. Mr. Chang is seen sitting in a chair to the right of the



A CHINESE PHARMACY IN SHANGHAI.

picture. He is a man in the prime of life (44), who at the age of twenty-one came under the influence of European missionaries, learnt English from them, and got thorough instruction in pharmacy. He started in business for himself a dozen years ago, and by 1896 employed 120 people in his stores. In that year also a signal honour was done to him as thus told by a local paper:

Mr. J. D. Chang, the manager of the Shanghai Dispensary, is the lucky recipient of the first chemist's diploma of honour, accompanied with a gold medal, that has been granted in China. Chinese students are trained and granted qualifications in medicine at the Viceroy's Hospital and Medical College at Tientsin; but there is no institution in

this country of a similar nature where a man can qualify as a pharmaceutical chemist and druggist. H.E. Li Hung Chang, during his recent visit to Shanghai, *en route* to Europe, conferred this special diploma of honour upon Mr. Chang at the special recommendation of some foreign physicians and his personal medical adviser.

Mr. Chang uses the English language with great effect in all his advertising. Mr. Magnus in his article states that Shanghai is entirely cosmopolitan. There are no fewer than five English pharmacies, one German, and one French, besides Mr. Chang's, in which an important German merchant is financially interested. Its returns are said to be the largest in the city, and it supplies the missionaries in the interior with their medical and surgical requirements.

There are many Chinese and Japanese pharmacies in Shanghai in which European methods are not neglected, but wherein native physic is the mainstay. One of the photographs of Messrs. Watson's pharmacy has already indicated that the staffs of assistants are largely and mainly Chinese. This is one of the points noted by Mr. Magnus, who says most of the European pharmacies have two European assistants, a clerk (usually a half-caste) for the extensive correspondence as well as bookkeeping, besides a large number of Chinese coolies and "boys." The latter are of better parentage and speak more or less good English, and act as intermediaries in the trade with the Chinese.

#### A GERMAN DESCRIPTION.

The five English pharmacies all do large businesses, but medicine, Mr. Magnus asserts, plays but a subordinate part in the English pharmacies. Wines, spirits, and cigars are sold in them. Not so in the French and German pharma-



INTERIOR OF GERMAN PHARMACY IN SHANGHAI.

cies, both of which do a good trade. Mr. R. Pfister, of Shanghai, has also written to our contemporary on this subject, and we have to acknowledge our colleague's courtesy in giving us the last two photographs. Mr. Pfister deals especially with Chinese pharmacies. He has visited several of them with interpreters, and taken the opportunity of getting in touch with the native doctors. He says it is by no means an easy matter to become initiated in the secrets of the Chinese chemist, and to learn how they conduct their business. This is not only owing to the difficulty of understanding one another, and to the Chinese distrust of the foreigner, but also to the veil of mysticism which hides them. The practice of pharmacy in China is preceded by a period of apprenticeship, the length of which rests with the principal, and varies according to the ability of the apprentice. It is usually completed by the time he is twenty. During his apprenticeship the young chemist studies the Pharmacopoeia well, if the book containing the names of 425 chief medicaments can be called such. The favourite remedies, and those which are most prescribed by the doctors, are of animal origin. The pill is a favourite, but the Chinese dispenser does not take a special pride in making them as small as possible; they must be about the size of a walnut, so that the patient may have something substantial to chew at. The chemist is held in high esteem by the people, for he belongs to the well-to-do tradesmen's class. If the young pharmacist's assistant does not possess sufficient means to buy himself a pharmacy, or to open a new one, he often sets up as a doctor, or, more properly speaking,



"quack," which amounts to the same thing in China, and endeavours to make money out of the ignorance of the people. Besides the class of quack which such young men typify there is another kind called "long tsung." This class of doctor is held in very little repute even by the lowest Chinaman.

#### LONG TSUNG AND TAI FU.

The "long tsung" is a veritable pedlar and quack. Furnished with a box which holds his costly and wonder-working medicaments and secret remedies, this pupil of *Æsculapius* goes from house to house and village to village, occasionally evoking ear-piercing sounds from a musical instrument which he carries with him for the purpose of attracting buyers. He then proceeds to describe the unfailing efficacy of his drinks and to recommend them as an aid to a long life.

The academically trained "doctors and chemists" get their scientific knowledge at the Pekin or Tientsin University. They pass an examination and obtain the title "tai fu," as well as being State-qualified mandarins with a yearly income, while they are held in great esteem as belonging to Class 1, which is the learned class. These mandarins are divided into ranks of various degrees, which are recognised by the round button they wear on their caps. A mandarin of Class 1 has a dark red button; Class 2, light red; Class 3, dark blue; Class 4, light blue; and Class 5 have a transparent glass button. Besides these educated mandarins, who can only obtain their degree by passing an examination at the universities, there are a large number of Chinese who have bought the mandarin title, but they do not belong to the first class. Not many doctors have obtained the title "tai fu"; most of them are content with the cheaper title, "Isang." There are pharmacies belonging to State-qualified "Tai fu" pharmacists in Pekin and Mukden (and probably also in Tientsin). The scientific knowledge of our pigtail colleagues must not be gauged from a modern standpoint, but these gentlemen, in Mr. Pfister's opinion, are as well if not better acquainted with their fifty-volume "Pun tsaou kang muh" than many a German pharmacist is with the German Pharmacopœia.

## Suggested Improvements.

By H. A. C. SAMPSON.

THE average man is always surprised to discover how very few articles there are in everyday use which are not capable of improvement. He sallies forth to purchase something which he has purchased many times before, and when the shopkeeper shows him something better in every way he is either annoyed beyond measure to think he did not patent it himself or else insulted by the suggestion that anything to which he has given his patronage can be improved upon. Whichever is the case, the result usually is that, for a time, a "new form" refuses to "go." It is, however, only for a time, for no matter how conservative a man may be politically, he is rarely so insane as to refuse to use something which he sees is better than the article he has used hitherto. It is essential, however, that the improvement be genuine, and, this being the case, an improvement of something old is of more commercial value than the invention of something new. It is with the hope of helping chemists to obtain a few improvements, and the manufacturer to supply them, that I write this.

#### THE SUSPENSORY BANDAGE.

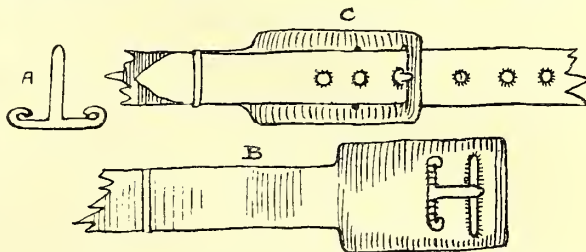
Is there any chemist who has not had complaints about the abominable discomfort of these, to many, necessary evils? The chief complaint is the buckle. I have one



THE USUAL BUCKLE.

before me now of which I give a sketch. The buckle, it will be seen, is wider than the band. It is metal and lies right in the groin. Could anything be worse than this

cutting, chafing, buckle in such a tender part of the body? If a metal buckle must be used, why not place it at the back and make it narrow, with a pad beneath, instead of the thin and useless piece of webbing which is sometimes conceded, but not always? I would suggest, however, a



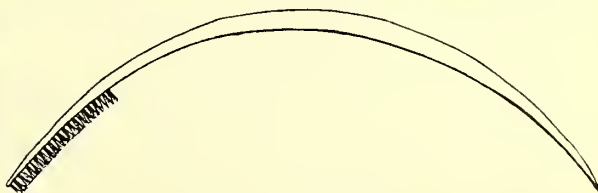
SUGGESTED BUCKLE.

- a. Metal portion, actual size.
- b. End of tape, padded, with metal attached.
- c. Buckle in use, half actual size.

new buckle, of which I give a drawing. It has no sharp points, and the metal portion is so small that even in the groin it could scarcely be felt. It is padded with cotton wool, and the tape round the body has holes in it, not eyeletted in metal but buttonhole-stitched.

#### A NEW TOOTH-BRUSH.

Why are tooth-brush bristles so long? How is it possible to clean the back teeth with the ordinary tooth-brush? The cheek lies so close to the gums that a tooth-brush is wedged into a corner, as it were, and the ends of the bristles do not touch the teeth. Continued using of a tooth-brush of this description is a cruel ill-treatment of the inside of the mouth. It stretches the cheeks and, with the ordinary straight handle, pulls the corners of the



CURVED TOOTH-BRUSH.

mouth down. It cannot make for beauty in adults, and in children must pull the face out of shape. I suggest, therefore, half the length of bristle, half the thickness of back, and a curved handle as sketch. This handle would naturally slide the brush round to the back teeth, whereas the straight handle must be pushed in at right angles to the side of the jaw, pouching the cheek and pulling the lips about.

#### A NEW NAIL-BRUSH.

This should have two kinds of bristles—half hard, at one end, for the nails, and the other half soft, for the knuckles and skin. Most ladies now choose a brush which will not hurt the skin, and is consequently too soft for the nails, while gentlemen choose one hard enough for the nails, but which, unless they have a hide instead of a cuticle, leaves their fingers sore for a half an hour after washing. While writing of brushes I would remark that military hair-brushes might be reduced in width about a third and yet be quite as useful, while the economy of space would be considerable in a well-packed kit.

Is it too much to ask for

#### A PERFECTED LABEL-DAMPER?

The reasons against licking labels are very obvious—the practice is dirty and unhealthy both to licker and purchaser; but with the present label-dampers there is little hope of a label sticking without being licked. Take a slip label and try to stick it to an ounce packet of salts. Unless it is made leaking wet, and saturates the wrapping paper the ends will not lie down even for a



minute. This is largely due to thinness of gum: labels are too cheap. The gum on a postage-stamp is stronger, but perhaps a damper could be made in which weak gum could be used instead of water. The glass damper with a cloth pad the size of a slip-label, and moistened by capillary attraction from the well beneath, is the commonest and worst thing on the market. Every shop has one, and it is usually to be found bone dry and cracked in an out-of-the-way corner on or under the counter. Unless it is kept drenching wet the label becomes tacky enough to stick to the glass side and tear; the pad is too small to wet a label at one application, and in juggling it about the label sticks to the damper and the fingers, and by the time it gets to the package is tired of sticking and gives it up. If the top pad were triangular in section, with a blunt edge standing up, and the container of metal and much larger, the capillary damper could be improved; but something much more useful might, I think, be invented—something which would lead to good sticking instead of bad language.

#### FEEDING OF INFANTS.

No one is in a better position to assist in this matter of proper feeding than the chemist, but it is obviously impossible for him to give lectures over the counter. Could not a book or pamphlet be written covering the main ground of the subject and free from advertisements in the subject-matter? There should be advertisements, certainly, to cover the cost of the book, but let them, as well as the book itself, be subject to the approval of a recognised authority on the subject. It would be folly to enunciate the truth of the statement—"no one food can be expected to agree with all children"—and add in the advertisements that So-and-So's patent will not only suit *all* infants and invalids, but will likewise give reason to the imbecile and understanding to the illiterate. It is little wonder that mothers go back to boiled bread when they read the miraculous accomplishments of sevenpenny packets of baked breadcrumbs. Let us have an honest book from cover to cover—a book which can be circulated with confidence and studied with conviction.

#### DISPENSING-COUNTER SUNDRIES.

The purple-shoulder pill-box needs a new lining. Put a white tablet in one of these lined boxes and shake it round a few times. Some of the colour will be found on the tablet. Yet tablets are frequently dispensed in these boxes. The German boxes are lined white, but the English box still sticks to red. If it comes off on a tablet, it will also stick to a pill, with perhaps disagreeable results. Could not we have a little series of boxes especially for dispensing tablets? I would suggest an oblong hinged box like a diminutive seidlitz box. Many shops dispense tablets in a bottle, the oval tablet-bottle being common, although no dispensing label looks well on this shape. The only thing in its favour is its portability, and here an oblong box would do just as well, while for tablets for home consumption a square squat bottle like a desk ink-bottle would, I think, be most acceptable. For those who, from necessity or fancy, have to be always taking tablets the jewellers have provided "tablet-boxes" in silver and metal. Common as they are in the silversmiths', however, I have never seen them for sale in a chemist's, where they might find a place beside the smelling-salts bottles. One more box we want—viz., for cachets. It should be the same shape as the white sliding box, but have a hinged or cap cover. The sliding box generally used pushes the cachets along over each other and smashes them.

Many of these suggestions may be already on the market in actual form. If so, let us hear of them.

**PRECAUTIONS AGAINST PLAGUE.**—The Officiating Special Health Officer to the Calcutta Municipality has issued a notice to residents of Calcutta and suburbs with regard to plague-prevention. The notice advises all citizens not to sleep on the bare ground at night, but on a charpoy (native string bed), box, or shelf; not to touch a dead rat with the hand, or eat grain in which dead rats have been found; to kill all rats and mice that infest a dwelling; and gives other directions regarding the treatment of plague-stricken persons.

## Practical Notes and Formulæ.

#### FETRONE OINTMENT-BASIS.

LIEBREICH's recently introduced ointment-basis, the anilide of stearic acid, when mixed in the proportion of 3 per cent. with yellow vaseline, produces a basis that melts at 68° C. The mixture absorbs sufficient water to allow of the incorporation of the usual medicaments, but its absorbability is improved by the addition of anhydrous lanoline. Zinc ointment made with fetrone has a much more drying effect in the case of weeping eczemas. Here is a formula that has been used with success in cases of itching eczema:

Menthol.	...	...	...	gr. viij.-xv.
Ol. olivæ	...	...	...	℥XLV.
Bromocoll.	...	...	...	gr. lxxx.
Hydrarg. perchlor.	...	...	...	gr. j.
Ac. carbol.	...	...	...	3ss.
Ung. zinci (made with fetrone basis)	...	...	...	3iss.

A basis containing 10 per cent. of the anilide of stearic acid is used in old-standing cases of ulcerated legs.

#### LAUNDRY SPECIALITIES.

THE "Mineral-water Review" gives the following recipes for various articles used in laundries, which chemists and druggists will find useful in association with the formulas and hints on this subject contained in "Pharmaceutical Formulæ."

#### Liquid Laundry-blue.

Oxalic acid	...	...	...	8 oz.
Chinese blue	...	...	...	16 oz.
Hot water	...	...	...	6 gals.

Strain.

For use the laundress adds a few drops to the water to give the required blueness.

#### Paste Laundry-blue.

Good ultramarine blue	...	...	18 lbs.
Carbonate of soda, crystals	...	...	15 lbs.
Liquid glucose	...	...	3½ lbs.
Soluble blue	...	...	½ lb.
Water	...	...	a sufficiency

Make into a mass, cut into cakes or squares, and dry at 70° F. Then wrap each cake of blue in a piece of flannel and tie at the neck.

#### Liquid Cold-water Starch.

Sago flour	...	...	10 lbs.
Salt	...	...	4 lbs.
White dextrin	...	...	2 lbs.
Glycerin	...	...	2 lbs.
Water	...	...	13 pints

Put up in pint or quart bottles.

#### Cold-water Starch and Gloss.

Sago flour	...	...	22 lbs.
Rice starch	...	...	9 lbs.
Salt, dry	...	...	6 lbs.
Powdered borax	...	...	6 lbs.
White dextrin	...	...	6 lbs.

The directions should read as follows:

Make sufficient of the starch powder into a stiff paste with cold water, then dilute to usual consistency with boiling water. Do not boil the mixture.

#### Wax Polish.

Stearin	...	...	1 lb.
White wax	...	...	2 lbs.
Spermaceti	...	...	4 lbs.

Melt together and cast into cakes.

The shirt-front is made hot by ironing the wax cake lightly rubbed over the hot linen and a polishing-iron used to spread the wax over the surface.

#### Starch-glaze Powder.

Powdered borax	...	...	42 lbs.
Potato starch	...	...	16 lbs.
Common salt	...	...	14 lbs.
White dextrin	...	...	3 lbs.

1 oz. of this powder is mixed with 2 pints of starch.



## Pharmacy in Beyrout (Syria).

By TRIANTAPHYLLO LADAKIS, Pharm.M.,

Teacher of Pharmacy in the Syrian Protestant College.

**B**EYROUT, the second commercial seaport of Asiatic Turkey, and the most important seaport of Syria, has a population estimated at between 100,000 and 120,000. Two-thirds of the inhabitants are Christians and one third are Mohammedans, the language of both being Arabic. There are also several hundreds of foreigners.



THE AUTHOR.

There are about fifty pharmacies in the city, which may be divided into three classes. The first comprises those which dispense from twenty to sixty prescriptions a day, employing four or five assistants. There are four to five pharmacies of this class. The second comprises those which dispense from five to twenty prescriptions a day, employing from two to four assistants. Of such pharmacies there are four or five. The other pharmacies fall under the third division, and employ one or

two assistants, and dispense from one to ten prescriptions per day. In Beyrout all pharmacies are owned and controlled by the pharmacist—that is, no pharmacist gives directly to a physician any percentage of his profits, as is often done in Egypt. There are one or two pharmacies of the second class in which physicians, relatives of the proprietors, conduct once or twice a week free clinics, the patients being expected to have their prescriptions filled in the store.

### RETAIL TRADE.

Strange to say, most of the pharmacists discourage the sale in small quantities of such commodities as linseed, chamomile, and the like. Especially is this true in the larger pharmacies, where the profit would be considerable. The assistants in these stores do not wish to trouble themselves with small amounts, and so send the would-be customers to the small grocer, who in this way does a great deal of business, and even becomes the supplier of the pharmacists' wants. Second, and especially third class, pharmacies do some retail drug-business, but it is of little importance, because everybody knows that drugs of everyday use can be bought cheaper elsewhere. In fact, a street in the old city is called "Suk-ul-Attarin," the market of the druggists, where the air is redolent of rhubarb and asafetida, anise, and tar, etc.

### WHOLESALE TRADE.

Although Beyrout is the commercial centre of Syria, Palestine, and a large part of Asia Minor, there are no special wholesale drug-houses in it, but all first-class, and some of the second-class, pharmacies do a good deal of wholesale business, supplying drugs to all Syria, and to a part of Palestine, Asia Minor, and Cyprus. Nothing is manufactured in the city—that is to say, no chemical compounds, extracts, or fluid extracts are prepared, because they can be imported so cheap from abroad that it does not pay to prepare them here. There is a French factory of chemical products where sugar-granulated salts and fluid extracts are prepared, but these are not in much demand.

### THE STATUS OF PHARMACISTS.

Pharmacists are not considered here as scientists, but simply as sellers of drugs, and this view is right, because no pharmacist develops the scientific part of his profession, and does nothing but dispense prescriptions and sell drugs. An

exception may be the analysis of urine, which the first-class pharmacies do very satisfactorily.

All Beyrout pharmacists except one are Syrians, and graduates either of the School of Pharmacy of the Syrian Protestant College or of that of the Université de St. Joseph (Catholic), both in Beyrout. Assistants also are all Syrians, and most of them have had considerable experience, and are well up in dispensing, which calls for a knowledge of three Pharmacopœias (French, British, and American), since most of the foreign physicians come from the countries represented by these standards, and each one prescribes the preparations of his own Pharmacopœia. The native graduates are taught the B.P. in the American College, and the French Codex at the Jesuit College. The American physicians prescribe a great many of the American preparations that are especially useful, but, in the main, make use of the B.P., as they realise that their own Pharmacopœia is less known in Syria. In our college we teach the students the similarities and differences among the three standards, and also any preparations which one has and the others do not mention. Considerable attention is also given



PHARMACIE FRANÇAISE.

Established in 1890, and belongs to Messrs. P. Guiges and G. A. Chekr-Allah. Mr. Guiges is a Professor of Pharmacy in the French College and Mr. G. A. Chekr-Allah is a graduate of that school. This pharmacy is the one that supplies drugs to most French people and to French companies in Beyrout, such as the railway company, Beyrout Port Company, and to some religious (Catholic) establishments. A great variety of photographic appliances is to be found there, and it is the dépôt for "Lumière" photographic products.

to the differences in weights and measures of the British and French Pharmacopœias. Much confusion results among the pharmacists from the fact that one standard deals with solids by weight and liquids by measure, while the other calls for everything by weight in grams.

### IMPORT TRADE.

As I said before, everything is imported from abroad. The countries that supply us with drugs are Germany, France, England, Austria, and Italy. The largest amount of chemicals comes from Germany, which supplies more than England and France together. A few things come from Austria and Italy, as, for example, volatile oils and flowers from Austria, pills and capsules (in bulk and put up in boxes or bottles) and some other things from Italy. Some years ago everything was imported from France, but now nearly everything comes from Germany, England and France supplying only proprietary articles, perfumery, and very few chemicals.



The reason that everything comes from Germany is because the goods are cheap, and also because the German manufacturing chemists send their salesmen frequently;



PHARMACIE FRANÇAIS (INTERIOR).

while from English and French houses one or two only come each year. There is another thing that German manufacturing chemists have done, and probably it adds a great deal to their success—that is, they have established agents in Beyrout for the whole of Syria, Cyprus, and a part of Asia Minor, who get the orders of their customers and forward them to Germany. Those German export-houses who have agents here agree never to send anything directly to the pharmacist, but only to their agents, who deliver the goods and settle their accounts with the pharmacist, the customers being allowed to run accounts and pay as much as they can each week or each month, as the case may be.

The Germans send price-lists in French, and the prices are given in francs per kilo. English price-lists are in English, and even if buyers find what they want in an



PREUSSISCHE APOTHEKE, H. HEINE.

Established in 1867 by Dr. Lorouge for the dispensing of his own prescriptions. Mr. Heine, an apotheker, was the manager for a long time, and in 1879 bought the pharmacy. Besides the dispensing department, Mr. Heine has a wholesale connection for chemicals and other pharmaceutical products with pharmacists of the country.

English price-list, it takes them a long time to learn how much a drug would cost, as they are obliged to convert pounds into kilos, and shillings into francs; while Germans have taken the trouble and made everything ready for the buyer. I think this arrangement, too, adds something to the progress of German pharmaceutical commerce here in the East. Competition here is very keen, and pharmacists are obliged to get the cheapest possible goods.

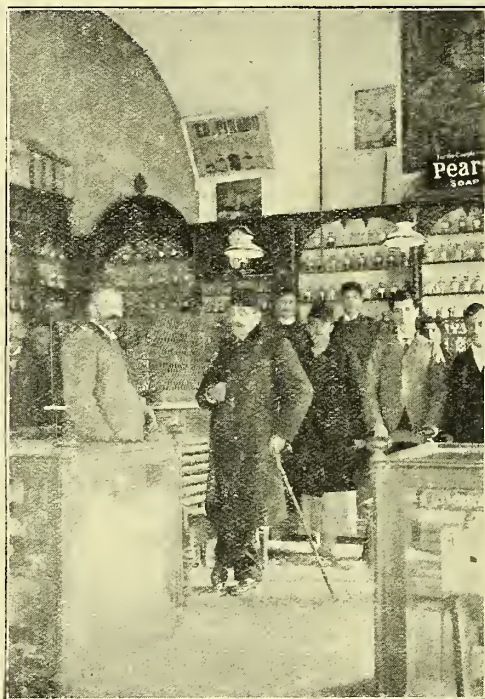
Proprietary articles are in demand, French kinds being generally asked for. Of the English products Fellows's

Syrup, Kepler's Malt-extract, B. W. & Co.'s Tabloids, and a few others are called for. Howards' quinine in half and one ounce bottles is in great demand, but I have seen lately half and one ounce bottles of quinine, put up in Germany and in France, a little cheaper, and they will probably find some sale.

The only drugs exported from Beyrout are liquorice, scammony and scammony-resin, linseed, and sweet and bitter almonds.

The life of the chemist in Beyrout is not very prosperous, and, with few exceptions, those engaged in this profession earn barely more than their living. In comparing the chemists of Beyrout with those of Cairo or Alexandria I may say that we close earlier, probably because all other shops (except tobacco-sellers and coffee-houses) here close right after sunset, so chemists' shops are closed at 7.30 or 8 p.m., and have no night-service, except one pharmacy, which keeps open all night. Here an extra charge of about 3s. is made for each prescription or drug sold at night.

There are very few pharmacists who do an appreciable amount of business in perfumery, and very little in photographic apparatus and surgical appliances, but one of the pharmacies does a good deal of work in selling electrical appliances, lamps, etc. The same pharmacy makes a speciality of face-powders of different kinds, which are



MURAD BAROODY'S PHARMACY.

Established in 1881 by Mr. Baroodi, who is a graduate of the S.P.C., and also holds the diploma of the Turkish Imperial School of Constantinople. Mr. Baroodi, besides having a good deal of dispensing, has a considerable wholesale business in drugs and chemicals with many pharmacies of Syria, Palestine, Asia Minor, and Cyprus. He is the agent for Allen & Hanburys' Perfected Cod-liver Oil, Fellows' Compound Syrup of Hypophosphites, Squire's Chemical Food, Howards' Sulphate of Quinine, the Imperial Dry-plate Co., Ltd., Burroughs Wellcome & Co.'s "Tea Tabloids," and Institut Vaccinal Suisse's Vaccine-lymph and Diphtheria-serum.

very much in use in all Syria and Palestine. Photographic apparatus, and even photographic chemicals, are sold by special photographic dealers or photographers. Perfumery is sold mostly in shops where domestic supplies are sold.

#### CONDITIONS OF PRACTICE.

No one is allowed to open a pharmacy unless he has the Turkish diploma or one recognised by the Turkish Government. All physicians or chemists coming from abroad to



practise in Turkey must come *via* Constantinople, and be examined there by professors of the Imperial Faculty, in order to be granted permission for practising. Until last year this was the case also with the graduates of both the American and French medical and pharmaceutical schools of Beyrout, but now examiners come here and examine the students, so they receive their Turkish diploma without being obliged to go to Constantinople. For three or four years the French College only had this privilege, but now it is shared by the American College, with the added advantage that the examiners come to the American College just at the end of the college year (*i.e.*, on June 20), while they come in November or December for the French College, and in this way they lose six months.

Up to the end of the school year 1902 the Syrian Protestant College gave certificates of studies to both pharmaceutical and medical graduates, which entitled them to appear before a body of examiners at Constantinople to be examined in all subjects, in order to get the Turkish diploma of Master of Pharmacy or that of Medical Doctor. The certificate was recognised in Egypt and Cyprus as a diploma. The School of Pharmacy of this college has already been described in *THE CHEMIST AND DRUGGIST*. The college has an advantage over the French one, that it is not necessary to have American professors come from America; while for the French College the French professors have to come from France. There is a demand each year for graduates in medicine of the Syrian Protestant College for the Soudan Government, and I may add that our graduates of pharmacy are scattered all over Egypt, Soudan, Syria, Palestine, and Asia Minor. Being taught in English, they are made to understand that they can rely on English chemicals and other pharmaceutical products, so I think that if manufacturers wish their products to be known and used in the above-named places they have but to send me their price-lists each time they publish them, together with samples of products they think are of interest, and I will keep them at the college, where they can be seen by both the pharmaceutical and medical students of the college.

In addition to the pharmacies figured I may mention Mr. D. B. Nahoul's establishment, which is one of the oldest pharmacies in Beyrout. Mr. Nahoul is a graduate of the School of Pharmacy of the S.P.C., having at the same time the diploma of Master in Pharmacy from Constantinople. The pharmacy was started by Mr. Nahoul, who some years later assumed as partner Mr. D. Aftimus, an expert chemist, who taught the practice of pharmacy for some years in the S.P.C. He died in 1903 at the early age of thirty-two. In Mr. Nahoul's pharmacy one finds all possible proprietary articles—English, American, French, etc. He is the agent of Parke, Davis & Co., and many other firms. Mr. Ibrahim Abouchacra, a graduate of the School of Pharmacy of the S.P.C., is the manager of the pharmacy.

## Scientific Progress.

Temperatures under this heading are on the Centigrade scale.

**Oil of White Pine.**—Golowhef has examined the essential oil from the Siberian white pine (*"Jour. Soc. Phys. Chim. Russ."* 1904, 1005), and from the higher-boiling fractions has isolated a crystalline body melting at 29°, and having the composition  $C_{12}H_{22}O_2$ . It is probably a fatty acid ester of borneol.

**The Atomic Weight of Iodine.**—As the result of an elaborate series of determinations, the account of which covers about 45 pages in *"Liebig's Annalen"* (1904, 123), Köthner and Aener have placed the atomic weight of iodine at 126.011 as compared with hydrogen as unity, or 126.963 compared with oxygen as 16.

**New Remedies.**—*Isoform* is para-iodoanisole, and is recommended as an antiseptic for external and internal administration. *Isophysostigmine* is an alkaloid isomeric with physostigmine, extracted from the Calabar bean. It is proposed as a substitute for physostigmine. *Lofotin* is a fancy name given to a new preparation of hydroxyl-free cod-liver oil. *Stomosan* is methylamine phosphate, and is recommended in cases of gallstones and similar complaints.

**Sophorin.**—Brauns has examined the glucoside from the Chinese yellow berries known as *Sophora japonica* (*"Archiv. der Pharm."* 1904, 547). By repeated recrystallisation from hot water he has obtained it in a pure state. When dried at

110° it is anhydrous, and has the formula  $C_{27}H_{32}O_{10}$ . On hydrolysis it yields about 50 per cent. of a body which has been termed sophoretin. By a comparison of its acetylation-products, however, it is probable that the body is identical with quercetin. In addition to sophoretin, glucose and rhamnose are obtained as products of the hydrolysis.

**Citric Acid** usually crystallises with one molecule of water of crystallisation, but, according to Meyer (*"Berichte,"* 1904, 3599), if the acid be dehydrated and redissolved in water it crystallises in the anhydrous condition. If, however, such a solution be sown with a crystal of hydrated citric acid, the separation of hydrated acid is induced, and the whole crop is obtained with one molecule of water. It has been suggested that solutions of hydrated and dehydrated acid differ in their properties, but this is now shown not to be the case.

**Testing Olive Oil.**—The Becchi reaction for cottonseed oil, which is that employed by the British Pharmacopœia, and the more sensitive modification of Milliau, which is carried out on the fatty acids, have long been regarded as uncertain on account of the fact that cottonseed oil can be purified so well that it yields practically no reaction. It is now shown (Milliau, *"Répertoire de Pharmacie,"* 1904, 539) that the reactions, as well as Halphins, are unreliable in the opposite sense, since Kapok oil (the product of the seeds of *Eriodendron anfractuosum*), a commercial article, and an oil known as baobab oil, also easily obtained commercially, both give the same reaction. A differentiation between the last-named oils and cottonseed oil, however, can be made by the fact that reduction of silver nitrate takes place in the cold with both of them, whereas the reaction does not take place with cottonseed oil except when heated.

**Atropine-tests.**—C. Reichard (*"Chem. Zeit.,"* 1904, 28, 1048, and *"J. C. S."*) reports that if atropine sulphate is rubbed with a little sucrose and moistened with a little hydrochloric acid, the mass turns rose-red or dark-red on warming, and remains so for some time. If atropine is mixed with arsenious or arsenic acid and sulphuric acid, a reduction of arsenic takes place. If a small particle of cobalt nitrate is dissolved in a drop of water and mixed with a trace of atropine sulphate, no reaction takes place in the cold, but on warming and evaporating a green residue is obtained, which dissolves in water with a green colour; at the same time the characteristic atropine odour is noticed. This colour is destroyed by ammonia; potassium hydroxide turns it violet. A solution of bismuth trichloride gives no reaction with atropine, but on adding sulphuric acid an intense egg-yolk colour is obtained. A solution of antimony trichloride gives a green colour on warming.

**Adrenaline.**—A paper appears in the current issue of the *"Bulletin de la Société Chimique de Paris"* (1904, 1289), by G. Bertrand, on the physical characters of adrenaline. The author claims that his method of preparation of this interesting body yields it in an absolutely pure state, and that its properties, when pure, differ somewhat from those previously described. Pure adrenaline is a white, amorphous powder, as fine as the finest ground starch. Under the microscope it presents the appearance of spherocrystals. Except when rapidly precipitated from an impure liquid, these are in the form of a rosette and are very regular in shape. Adrenaline is only very slightly soluble in water (0.0268 per cent. at 20° C.). In boiling water it is more soluble. In alcohol it is still less soluble than in water, and in most other organic solvents it is quite insoluble. Pauly has given its specific rotatory power as  $-43^\circ$ , while Jowett gave it as  $-32^\circ$ . Pure specimens gave concordant results which fix this figure, according to the author, at  $-53.3^\circ$ . The melting-point has been given at 206° to 212°, but the author claims that when pure adrenaline melts at 263°.

**Tests for Strychnine and Brucine.**—C. Reichard, in *"Chem. Zeit.,"* 1904, 28, 977 (*"J. C. S."*), gives the following new reactions for this alkaloid. A mixture of strychnine nitrate and copper nitrate yields a residue which turns violet on addition of stannous chloride, but on drying the mass again becomes green. On evaporating strychnine nitrate with platinic chloride, and then adding sulphuric acid, the mass turns dark-red on warming; brucine turns yellow. Hydrogen peroxide, strychnine, and sulphuric acid give a blue liquid with yellow edges; after a while the liquid turns yellow; the colouring-matter is not extracted with ether. Sulphuric acid, strychnine, and titanous acid give a blue liquid, gradually changing to yellow, which remains so on adding water (distinction from brucine). Strychnine, when evaporated with potassium hydroxide, gives a residue which turns dark-blue on adding stannous chloride; brucine gives no colour. Hydrochloric acid and potassium persulphate give no reaction with strychnine in the cold, while with brucine a splendid red colour is developed which disappears only after some time. On warming, the strychnine solution turns yellow. This persulphate test will show the smallest admixture of brucine in a strychnine solution.



## Norwegian Pharmacy.

Some Notes on a Revisit to the Land of the Cod-fishers and Observations on its Medicine-men.

By W. BOUSFIELD.



AALESUND—AFTER THE GREAT FIRE.

**A**LTHOUGH in 1903 I made a lengthy tour through Norway (see *C. & D.*, August 29, 1903, and January 2, 1904), it appears to have only whetted my appetite for that delightful country, and last year I had another Norwegian trip, but not on so extended a scale. At first I only proposed to go to Bergen and neighbourhood, but a strong desire to see the burnt town of Aalesund induced me to take a stage further north, and I spent a couple of days in Aalesund. I was afraid I should not be able to find accommodation, as every hotel in the place had been burnt down, but suitable wooden erections were temporarily built, and I had every comfort and attention.

I do not think anything short of an actual visit to Aalesund could give a true idea of the terrible nature of the fire which practically wiped out the town in 1903. The houses, being of wood, were entirely consumed, the blackened brick or stone foundations alone showing where the houses had been. I climbed to the top of Axlå, a peculiar hat-shaped mountain which commands the town, and to look on the blackened remains from that height gave one some idea of the fearful devastation, which, in one single night, did damage to the extent of eighteen or nineteen million kroner and reduced a prosperous town of 11,000 inhabitants to ashes and want.

The illustration which heads this article gives but a meagre idea of the desolation. Aalesund is, as careful *C. & D.* readers well know, one of the great centres of cod-liver oil production. The name implies Eel Sound, from the peculiar eel-like shape of the Sound, which runs through the town. It is built on three islands, and all over the town have sprung up wooden buildings for present use, until the owners can build more substantial structures of brick and stone, as the Störthing has decreed that, owing to the great risk by fire in wooden houses, brick or stone shall be the houses of the future.

Aalesund has two apoteket—the Svane ("Swan") and the Nordstjernen ("Northern Star"); both these pharmacies had to seek temporary quarters. The "Swan" got premises near the old location, but the "Northern Star" had to go quite out into the suburbs to get suited. But when the reconstruction takes place both must have new shops within a certain area to meet the public convenience. As the proprietors enjoy a Government monopoly, they must obey Government instructions. When the two pharmacies were in the town they closed alternately on Sunday, but now they are so far apart that each is required to keep open all day long. I had the opportunity of a long talk with

MR. OWRE, OF THE "SVANE,"

and also with his wife, who speaks excellent English. They kindly conducted me over the town, pointed out the spot

where the fire began, and also showed me the ruins of their old premises; the laboratory, being of brick, was the only place left standing. Mr. Owre is a constant reader of your valued paper, and expressed his intention of obtaining some of the *C. & D.* books, as, owing to the number of English tourists calling in the season, he wishes to keep abreast of things in England. He told me he bought many things from England, mentioning particularly a Clerkenwell Road firm and a Hull firm. I found the price of cod-liver oil sold retail to be 2 kroner 50 ore for a  $\frac{3}{4}$  litre bottle, which is considerably less than the ruling prices in 1903. I purchased a tube of cough "pastiller" at the "Northern Star," which, according to the label, consisted of "Tjvere of Furu, Anisolie, Papermynt Olie, Lakrits, Lakritsrod, Sukker, Hydemel, Tragacanth gummi."

I suppose the bulk of pharmaceutical students could make a fairly good guess at the English equivalents. I found that all compounded preparations had the ingredients printed on the label. Secret formulas do not find much favour abroad.

I left Aalesund by a local coasting mail-steamer, and arrived at Bergen at 5 P.M. the same day. Bergen is a

### MOST INTERESTING AND QUAIN CITY,

and is one of the busiest towns in Norway. There are seven apoteker—the Love ("Lion"), the Svane ("Swan"), Nordstjernen ("Northern Star"), Hjorten ("Hart"), Ornen ("Eagle"), Elephanten ("Elephant"), and Hygeia ("Goddess of Health"). The first two are what are called "whole privilege" apoteket—i.e., the owner can pass the business over to his son, who of course must be a trained pharmacist, or he can sell the business to whom he pleases, or his widow may carry on the business with a manager as long as she is a widow. The other five have not these privileges, and in case of the owner wishing to dispose of the business the Government would decide who should come into possession. The "whole privilege" pharmacies are now but few in number, the "whole privilege" only pertaining to the older established houses, for the Government does not grant these privileges to the newer ones, so that the "whole privilege" will eventually die out. The Government will then have the entire disposal of the apoteket of the country.

I called at all the seven shops, but at two of them the assistants could only speak a very little English; at the others I had conversations on pharmacy in general, but this was largely confirmatory of what I have said in my previous communication. Every third year the Government issues the "Medicinal-Takst for Norge." This is a book containing all official preparations, with the prices to be charged in prescriptions. Above those prices the apoteker must not go, but below if he chooses; other quantities to be charged in proportion. There are also minute instructions as to the



charges to be made for the various operations necessary in filling in a prescription, even to the charge for writing and affixing the label. Five ore is the minimum charge to be made for any ingredient in a prescription. At the end of the book there are given the formulas for three standard preparations, which I presume are on sale at every apotheket. The formulas are:

## MIXTURA THIELEMANNI.

(*Tinctura Anticholerica Thielmanni.*)  
*Thielemann's Koleradraaber.*

Aetherolei menthæ piperitæ	...	3 parts
Spiritus concentrati	...	22 parts
Vini opii crocati	...	10 parts
Vini ipecacuanhæ	...	25 parts
Tincturæ valerianæ	...	40 parts

(Then follow instructions in Norwegian as to how to mix.)

## TINCTURA ANTICHOLERICA CONRADI.

*Conradis Koleradraaber.*

Tincturæ opii	...	1 part
Tincturæ cascarillæ	...	2 parts
Ætheris spirituosus camphorati	...	5 parts
Tincturæ rhei amaræ	...	5 parts

Blandes (Mix).

## UNGUENTUM HYDRARGYRI VASELINATUM.

*Kviksølsalve.*

Hydrargyri	...	5 parts
Vaselini	...	2 parts
Paraffini solidi	...	10 parts
Vaselini	...	83 parts

(Then follow directions in Norwegian for preparing.)

I can testify to the efficacy of Conradis Koleradraaber as a diarrhœa-remedy.

There is an additional book issued, I believe, by the pharmacists of Christiania, containing a long list of unofficial preparations with the prices fixed in the same way as in the official publication. I found that most of the drugs are obtained from Germany, but bicarbonate of soda is obtained from England (Brunner, Mond & Co.). The reason for the Teutonic predilection is that the Norwegian doctors are largely trained in Germany, consequently in their practice they lean towards German things pharmaceutical, though it was admitted to me that the pharmacist in many cases would prefer English goods. I am also afraid that it is but further proof of the Britisher's want of adaptability to foreign ways. He seeks to sell his goods packed in *his* way and sold at *his* weights, rather than to meet the wishes and wants of those whose ways differ from his own. This point has been so repeatedly drawn attention to that it may seem superfluous for me to speak of it now. Anyway, there seems to me to be no reason why our first-class English houses should not have a fair share of Norwegian business, provided they go about it in a right way, and honest attempts are made to adapt our way of doing business to the Norwegian standard. I say "first-class" houses advisedly, as the Norwegian apotheket, being so continuously under the Government eye, must of necessity have everything of the best and absolutely pure, neither must there be drugs in stock beyond a certain length of time.

The proprietor of the "Elephant" apotheket could not speak much English, so he kindly handed me over to

## ONE OF HIS LADY PUPILS

—"disciple" she called herself—who spoke English fairly well. She conducted me over the entire premises, store-room, laboratory, still-room, etc., and I was greatly interested. One upper room was given over to the storage of light goods, and was a model of what such a room should be. Everything was carefully labelled, and packed away in drawers and shelves, and in perfect order, a strong contrast to many store-rooms I have seen in England. It is the same in all the pharmacies I have seen in Norway—not a thing out of its place, and, as their counters are not laden with the thousand and one things occupied by our pharmacies at home, their shops have an air of primness to which we in England are unaccustomed. The Norwegian pharmacist cannot under any circumstances refuse to make up a doctor's prescription. The fact that his customer cannot pay for it makes no difference. This is one

of the penalties of having a Government monopoly. However, the chemist has the advantage of a first claim upon the estate of his customer. I noticed with interest, both in the apotheket and in the offices of the dealers in, and makers of, cod-liver oil, the familiar orange cover of THE CHEMIST AND DRUGGIST.

I suppose the "Northern Star" is the most modern of the pharmacies in Bergen. It occupies a fine position near



INTERIOR OF "NORTHERN STAR" PHARMACY.

the post-office. Through the kindness of the proprietor I am enabled to present your readers with a picture of the interior.

Altogether I had five days in Bergen, and found much to be seen and heard in that curious and quaint old town. Leaving Bergen on July 16, we called at Stavanger (seven hours from Bergen), and, as we had two hours on shore, I was enabled to look round the town, and to call on my good friends the pharmacists. Stavanger is not so large and interesting a place as Bergen, but it is beautifully situated, and is a thriving, busy place. Stavanger is the seat of the "Hermetik Fabrik," where immense quantities of Norwegian sardines and other fish-delicacies are packed in hermetically sealed tins and despatched to all parts of the world. There are three pharmacies, the Hygeia, the Hjorten, and the Svane. I visited two of these, but learnt nothing of interest. Pharmacy in Norway, like that of most other countries, is somewhat on a dead level, and inclined to run in grooves. Stavanger must be increasing in population, for one of the pharmacists ruefully told me that permission had been given to open another shop, and that presently instead of three there would be four pharmacies.

Through the kindness of Dr. Hjort and an introduction from Mr. Isdahl, I had the opportunity of visiting the

## HOSPITAL FOR LEPROS

while in Bergen. Judged by Sir Henry Burdett's standard of hospital construction, this hospital is hopelessly out of date. It is built, like most Norwegian houses, of wood; is four square, with a large courtyard in the centre. It was built in 1860, and has accommodation for over one hundred patients. One half of the hospital is devoted to female patients and the other half to males. The wards are small, having from four to five beds in each. Everything was scrupulously clean. Leprosy was at one time rather common in Norway, but of recent years the disease has shown signs of gradually dying out. This is no doubt largely due to the improved condition of the people (especially in the more isolated districts), both materially and from a sanitary point of view. Thanks to the researches and valuable discoveries of Dr. Armaeur Hansen and his coadjutors, vast strides have been made of recent years in the understanding and treatment of this disease. Dr. Lie (pronounced "Lee") the resident medical officer, was away on the day of my visit, so I was received at the hospital by the acting medical officer, whose name I did not ascertain. For obvious reasons there is no admission to this hospital for general visitors, permission being reserved for members of the medical profession, but as I was able to show that I had interest in hospitals and their administration I was allowed access.



I attended at the hospital at 8 A.M., and promptly at that hour the doctor commenced his round, accompanied by a nursing sister and probationer to assist with the dressing. We first visited the dispensary, a very unpretentious room, with the usual array of drugs, etc. I understood that there is no run on any special remedy, as little is attempted in the way of active treatment, only alleviation of the symptoms being practised, the doctor telling me that cases of recovery were practically impossible. Isolation is the chief element in the attempt to grapple with this dire disease. We began our round with the women's wards, and ended there, so far as I was concerned, for after going into four or five wards I began to feel so faint and giddy that I excused myself and retired. The first patient we saw struck me as being singularly robust; she was a stout matronly woman of between fifty and sixty years of age, but an ugly wound in the left leg told its sad tale. There were patients in different stages of the disease in each of the wards we visited. What pleased me most was the kindly greeting of the doctor to each patient as he approached the bed, and to this they all responded with brightened faces. Each patient submitted to the dressing of her wounds and to the touch of the pencil without an apparent quiver of a muscle; possibly it is one of the compensations of this terrible scourge that its victims suffer little or no pain in its more acute stages. Nearly all the wounds I saw dressed were very liberally dusted with iodoform powder. It would serve no useful purpose for me to attempt to describe the appearance of the poor patients who were in the more advanced stages of the disease. It was a sight to be seen once, and remembered for a lifetime. I have visited the wards of a large number of the hospitals in this country and have seen many sad sights, but I shall never forget my short but eventful visit to the Leper Hospital. Truly, leprosy is a terrible disease.

#### The Itinerant Apothecary.



This is a half-tone reproduction of a quaint colour-print which Mr. Oscar Guttman has in his collection of engravings. The unfortunate being who is the subject of the print is compounded of the various articles used by dispensers—a pestle and mortar, pill-machine, mill-tile, bottles, measures, etc.; and it will be noticed that the little house on the left has a large pestle and mortar as its sign. The original print in colours is not dated, but judging from the process in which it is produced, as well as by the style of the apothecary's apparatus, we should place it at the beginning of the nineteenth or end of the eighteenth century.

#### Dr. Schott of Bad Nauheim.

A "C. & D." Writer has a Little Interview with him.

THE German watering-place is a revelation to the inexperienced traveller, so neatly laid out, so methodically distributed, and so orderly and clean. Bad Nauheim is a comparatively new growth, and its fame is indissolubly associated with the name of Schott, the two brothers of that



PROFESSOR SCHOTT OF BAD NAUHEIM.

name having laboured hard, and in the long run successfully, to make known the virtues of its waters in the curative treatment of a class of maladies towards which it is customary to adopt what is technically known as a purely expectant attitude, dictated by the assumed impossibility of doing anything more to restore health or prolong life.

The waters are not as other waters. They contain, in addition to various salts, huge quantities of free carbonic acid, under pressure of which they are forced high into the air as opaque white foam, falling back into the reservoirs in seething masses, there to get rid of their surplus gas. The effervescing bath (*sprudelstrom*) is an experience in itself. The hot water (for it is projected from the bowels of the earth at a temperature of between 80° and 90° F.) rushes roaring into the bath, fizzing and fuming around, covering the skin with a thick layer of gas-bubbles which stimulate the circulation, dilate the cutaneous blood-vessels and turn the skin of a bright red hue, like unto the "cardinal of the seas," as an ignorant orator once described the lobster. The action of the bath on the cutaneous circulation is obvious and immediate, but it is a powerful influence that requires to be handled prudently when applied to the treatment of circulatory disturbances associated with cardiac degeneration lest the last state be worse than the first.

The presiding genius, the *genius loci*, is the surviving brother Schott, whose life during the season is one long, unceasing round of hard work, beginning at 6 A.M. and finishing at—well, only his overworked coachman could approximately say when. People refer to him with bated breath and whispering humbleness. His patients range between royalties and overwrought but necessarily well-to-do tradespeople. His income, as proclaimed by popular rumour, runs into five figures sterling. Obviously such a



man must be worth knowing, and I had the choice between studying him as a patient, at my own expense, or appearing before him as a journalist in search of information. I adopted the latter course, but before doing so I lay in wait for him and snapped his physiognomy as he came down the steps of the Hotel Prince of Wales on his matutinal course to the next on his list of patients.

Not exactly easy of approach is Herr Geheimrath Professor Schott. "Have you an appointment?" My reply in the negative was received with a deprecatory expression which signified that I might as well abandon hope, but a few words of explanation led to my being hustled into the waiting-room among as doleful a crowd as I ever saw. Livid obesity, panting breathlessness, cyanotic complexions and puffy faces all testified to the gravity of the conditions which Nauheim *plus* Dr. Schott was expected to relieve. After a long by-and-by I had my chance. I was eyed suspiciously, but in my blandest tones I explained how all-important it was that I should be enabled to explain to the readers of the *C. & D.* what measure of truth there is in the sanguine reports that are circulated about Nauheim, and incidentally about Dr. Schott.

The great professor is a man apparently about sixty years of age, whose every fibre is agitated by a febrile activity and whose every moment is counted. He expresses himself with equal volubility in every European language, and he has strong opinions on everything and on everybody—that is to say, everybody who is not of his way of thinking. He waxed eloquent on the fact that the Nauheim treatment, properly so called, is caricatured by the introduction of things and methods altogether foreign thereto. Essentially a carefully-worked-out combination of graduated muscular movements and baths, the increase in the number of doctors practising at Nauheim (from three or four to over fifty) has led to fresh developments to which he is sturdily opposed. Massage, electricity, hypnotism, and faith-healing evidently have nothing in common with the system formulated and perfected by the brothers Schott, so that, to be at once precise and accurate, the treatment should be described as the Schott, and not as the Nauheim, treatment. Taking me, metaphorically speaking, by the scruff of the neck, he hurried me round to the bathing establishment and explained to me the special qualities of the various springs; then to the *salle*, where patients are made to undergo gentle prolonged "resisted" movements at the hands of skilled assistants (young medical men for the most part), then through the several bath-houses, where I was initiated into the infinite gradations of the waters employed for the baths according to the particular indications of each case. By the time he had done with me—though he did not waste any time—my brain was in a whirl, but I felt that I had the material for a three-volume treatise on the Nauheim waters. It was not until I sat down to begin writing it that I found out my mistake.

#### From other Climes.



One of the Christmas cards which we recently received. It is from Mr. A. Lomax, chemist, Molteno, C.C., and depicts his Pharmacy, which adjoins the Post-office and Clock Tower in Molteno. (Original, cabinet size.)

## Provident Dispensary Dispensers.

IN THE CHEMIST AND DRUGGIST, December 31, 1904, an ex-dispenser in a Friendly Society dispensary gave an account of his experience in rather glowing colours. He seems to have had one of the assistantship prizes of the drug-trade, and lest his less fortunate fellows should be guilty of breaking the tenth commandment overmuch regarding such situations, we would place on record the actual facts pertaining to dispensing in kindred institutions—the provident dispensaries of Greater London. It is not the exception, but the average that is the nearer to the truth, and while there are undoubtedly some lucrative posts as dispensers in the gift of provident dispensary committees, the majority of dispensers in such institutions are not the happy mortals painted by our contributor. We find in the most recent annual reports that the following are the disbursements made in respect to dispensing:

#### Payments for Year 1903.

	Dispensers.		Drugs and dispensary sundries.	
	£	s. d.	£	s. d.
Blackfriars P. D. ...	55	0 0	28	9 10
Bloomsbury P. D. ...	63	12 0	19	11 7
Camden Town P. D. ...	68	15 0	21	1 3
Chelsea P. D. ...	56	14 0	25	16 9
Croydon P. D. ...	78	0 0	31	14 5
Deptford P. D. ...	79	0 0	48	19 11
Hackney P. D. ...	67	10 0	28	14 7
Kensal Town P. D. ...	53	0 0	35	7 4
Notting Hill P. D. ...	53	0 0	22	2 8½
Pimlico P. D. ...	87	10 0	21	17 1
Walworth P. D. ...	55	5 0	19	3 2½
Westbourne Park P. D. ...	62	2 0	74	4 2
Whitechapel P. D. ...	82	10 0	59	3 10
Woolwich P. D. ...	58	10 0	67	5 5½
Paddington P. D. ...	114	4 0	51	8 5
Forest Hill P. D. ...	88	13 0	71	2 4
Western Dispensary ...	108	0 0	204	2 4
Battersea P. D. (2 dispensers)	429	5 6	505	4 8
St. John's Wood and Portland Town P. D. ...	144	0 0	134	5 2
East Dulwich P. D. ...	70	10 0	103	6 9
Tottenham and Edmonton P. D. ...	90	0 0	66	9 7
Greenwich P. D. ...	79	15 4	95	10 3
Haverstock Hill and Malden Road P. D. ...	142	0 0	60	17 3
St. George's (Hanover Square) P. D. ...	54	2 0	80	11 6
Wandsworth Common and Upper Tooting P. D. ...	33	15 9	51	7 11
Camberwell P. D. ...	104	0 0	161	17 5

The report of the Battersea Dispensary does not make it plain how much its dispensers receive. It is the largest institution of its kind within the metropolitan area, and requires the services of two dispensers, and in its expenditure account, from which we have extracted the figures, 429*l.* 5*s.* 6*d.*, is placed opposite the entry "Dispensers, etc." In most of the better-paid posts—*e.g.*, St. John's Wood and Haverstock Hill—the dispenser also fills the office of secretary, frequently under the nominal supervision of an honorary secretary. The dispenser is also the collector of the subscriptions of the benefit members who bring their monthly payments to the dispensary, and in a few cases he collects the money at the houses of the members, usually receiving 25 per cent. commission.

One of the provident dispensary dispensers is a pharmaceutical chemist (Mr. E. B. Stamp, Hampstead). There two dispensers are employed. The accounts do not distinguish between payments to dispensers and for drugs. The second dispenser in Hampstead Dispensary, and the dispensers in Camberwell, Forest Hill, and Paddington Provident Dispensaries, and in the Western Dispensary in Rochester Row, are chemists and druggists.

In none of the four positions with 150*l.* does the holder's name appear on the register of chemists and druggists. Of course, registration on the part of provident dispensary dispensers is not obligatory, but about 20 per cent. are qualified. The only registered chemist acting as a dispenser with a salary less than three figures is Mr. W. A. Dunn, of Forest Hill Dispensary. We find that the remuneration of unregistered dispensers in the smaller institutions works



out to about a shilling an hour when they are on duty. But the hours when attendance is not required are of little pecuniary value to the dispenser. He finds it impossible to employ profitably the time between noon and 6 P.M., when the evening *séance* commences. Taking four dispensaries at random, we find that the hours of attendance demanded are as follows:

Paddington ...	42½	hours per week
St. John's Wood ...	21	" "
East Dulwich ...	24	" "
Haverstock Hill ...	25	" "

As a rule the dispenser is paid according to the hours of attendance. The dispenser at St. John's Wood also acts as secretary and collector, and he is entitled to three months' notice, and the position is one of the most lucrative in the whole field of metropolitan provident dispensaries.

Only one dispensary—the Western, in Rochester Row—records the number of prescriptions dispensed during 1903, the figures applying to both provident and free departments, viz:

Prescriptions dispensed ...	45,527
Patients under treatment—	
Provident ...	6,203
Free ...	2,659
	8,862

This equals 5½ prescriptions per patient, and about five prescriptions per annum per card, which virtually means per family. In the report of St. George's (Hanover Square) Provident Dispensary the total attendances at the dispensary numbered 3,479, and as the membership comprised 1,162 cards this works out at about three prescriptions per card per annum, even if each attendance meant one prescription. Assuming the average prescription per card per annum to be five, we find that even a fairly large dispensary with, say, 1,000 cards and costing 90*l.* per annum for the service of a dispenser spends over 4*d.* on the compounding of each prescription. There are several dispensaries with membership very far below 1,000 who do not pay their dispensers anything like 90*l.* a year. On the basis of five prescriptions per card per annum we have drawn out the labour cost of dispensing each prescription as follows:

	Member- ship (Cards)	Expense of Dispenser	Estimated Cost per Prescription
		£ s.	d.
Blackfriars Prov. Dis.	380	55 0	7
Bloomsbury " "	475	63 12	6½
Chelsea " "	308	56 14	9
Notting Hill " "	350	53 0	7½
Walworth " "	400	55 5	6½

These charges are ridiculously high and we are able to put our finger upon a bad point in the provident dispensary system as at present managed. The dispenser in East Dulwich Provident Dispensary, a lady, is able to compound single handed for an institution with 1,616 cards on the membership-roll. It follows that when a dispenser is retained for a place with 400 cards he has not more work than to fill a fifth of his time properly, so the price of dispensing per prescription is high, although the poor dispenser has but starvation wages. The moral is that a provident dispensary should not attempt to dispense its own drugs unless there is a prospect that the time of the dispenser will be fairly occupied. In addition to the charge for the dispenser's services there is the expense of rent for the dispensing department and other small charges, such as coal and gas, which help to make the bill mount up. Thus the donations of the charitable are spent in supporting an expensive department for which there is inadequate need. In almost every street, certainly within a few yards of every provident dispensary in London, there is a chemist's shop, the proprietor of which would only be too willing to conclude an arrangement by which he would dispense all provident dispensary prescriptions at a low rate. The five dispensaries mentioned above received in charity in 1903 more than 300*l.* A more businesslike dispensing system such as we have suggested

would cancel any need for the greater part of the 300*l.*, and would liberate any saving to propagate provident-dispensary ideals in fields not at present covered. What has been said in regard to the five institutions applies equally to others.

In many provident dispensaries drugs and dispensing are provided by the doctors, whose fees are proportionately larger. Among these are Clerkenwell, Edmonton, Islington, Soho, and Tottenham (which are branches of the Metropolitan Provident Medical Association), Sydenham Dispensary, Lewisham Self-supporting Dispensary, Poplar Medical Association, and the Provident Medical Aid Friendly Society at Mile End. From the point of view of the members' best interests the practice of doctors supplying their own medicines is to be condemned, and preference given to the Local Government Board's recommendation that the man who prescribes a medicine under the Poor-law system should not dispense it, or, rather, that the charge for medical attendance should not be made to include the physic. It is a common practice in provident dispensaries to charge a penny for every prescription, and sometimes any surgical appliance not exceeding 10*s.* cost is supplied to members at half cost-price. The following sentence in the report of the East Dulwich Provident Dispensary throws a light upon the aspirations of the Committee of Management:

The amount paid for drugs and dispensing during the year was 174*l.* 9*s.* 2*d.*, whereas the amount received in payment for medicines was 148*l.* 17*s.* 6*d.* It seems desirable that some re-adjustment should be made in the charges for medicine so that the actual cost of drugs and dispensing may in future be covered by the payments for medicine.

This virtually means that the committee expect the pennies to pay the salary of the dispenser, the medicines, and half the expense of surgical appliances! What are the members' monthly subscriptions for? We are the more surprised at the statement when we observe that the names of six medical officers appear on the Committee of Management.

The conditions regulating the appointment of dispensers in provident dispensaries are substantially general. The dispenser is usually under the doctors, and if he strive to retain their confidence his position is secure as long as he wishes. The lists of officials of the dispensaries printed in the annual reports frequently mention the name of the dispenser. More frequently they do not. In the latter case he is not considered important enough, and ranks a little above the caretaker. In only one case have we observed that the efforts of the dispenser have come in for honourable mention in the annual report. In the *résumé* of the year's work by the secretary of the Greenwich Provident Dispensary it is stated that

The dispenser, Mr. Vickery, continues to prove himself an efficient and painstaking compounder, considerate and kind towards the members. The Secretaries also appreciate and value his assistance to them in the clerical work of keeping the accounts.

The amounts of money spent in drugs in the dispensaries whose reports we have laid under contribution are instructive. Taking them at the rate per card per annum we find that Bloomsbury Provident Dispensary, with 475 cards on the books, spent 19*l.* 11*s.* 7*d.* per annum on drugs during 1903, equalling almost 10*d.* per card per annum; while Brompton Provident Dispensary, with 429 cards, spent 51*l.* 4*s.*—almost 2*s.* 5*d.* per card per annum. The different practices of the doctors account for the wide difference. It must be remembered that the greater the surplus of money after paying expenses, the greater the emoluments of the medical staff.

"THE ART OF DISPENSING."—Of the value of a technical book that has already been sold to the extent of six large editions, and which is now in its seventh, it is unnecessary to speak. It may not be out of place, however, to call the attention of American pharmacists to the work and to inform them that this last edition brings the book thoroughly up-to-date. "The Art of Dispensing," since its first appearance in 1888, has been a standard authority in England and its Colonies. A careful examination of the book shows that its reputation is well deserved. It treats plainly but thoroughly all the subjects connected with the dispensing department of a pharmacy, and it would be impossible to find a better book to keep in a convenient place as a work of reference.—*Spatula*.



## Produce Notes.

From Correspondents in Various Parts of the World, and from other Sources.

### AUSTRALIAN SANDARAC.

A number of samples of Australian sandarac have been added recently to those already exhibited in the New South Wales Court of the Imperial Institute, and a note about them is published in the quarterly "Bulletin" of the Institute. The new samples illustrate the character of the resin in the crude state, and also after the cleaning process, in which very dilute alcohol is employed. Australian sandarac has been the subject of investigation in the Scientific and Technical Department of the Imperial Institute, and the results show that the product is essentially similar in chemical composition to that obtained from Morocco.

### HYOSCYAMUS MUTICUS.

Further chemical investigations in regard to *Hyoscyamus muticus* from India are published in the January "Bulletin" of the Imperial Institute. From a sample received from the Reporter on Economical Products in February, 1904, the stems yielded 0.36 per cent. and the leaves 0.38 per cent. of hyoscyamine. A sample of ground stems and leaves obtained from India in 1902 yielded 0.28 per cent. of alkaloid. These two samples have proved to be richer in hyoscyamine than the specimens first examined from India in 1896, but the percentages are still much lower than those which have been recorded for the Egyptian plant. Samples from Egypt have yielded from 0.6 to 1.2 per cent. of hyoscyamine, whereas the richest of the Indian specimens contained only 0.38 per cent. Consequently the Indian plant cannot compete with that grown in Egypt. Moreover, it is stated that the plant is not obtainable in India in commercial quantities. Inquiries regarding its distribution are, however, being continued.

### CINNAMON AND CARDAMOMS IN ASSAM.

The last report of the Department of Land Records and Agriculture, Assam, contains references to two spices in the province, the commerce of which could be developed.

*Naga Cinnamon.*—In order to teach the people of the Naga Hills how to remove and prepare the bark of wild cinnamon, which is common in those hills, a Khasia, accustomed to the work as practised in the Khasi Hills, was sent to Kohima by this Department at the instance of Major Howell. The man was employed there from September to December, 1903. He incidentally discovered the wild cardamom growing in the Naga Hills. Specimens of the cinnamon-bark prepared by him were sent to the Reporter on Economic Products to the Government of India for valuation. It was considered somewhat too thick, but still was valued at Calcutta at Rs. 7 per maund. The Reporter said that bark of half the thickness would fetch about thrice as much. The Deputy Commissioner has since reported that a Calcutta firm had addressed him on the subject of sending an agent to purchase cardamom and cinnamon.

*Wild Cardamom.*—A sample of wild cardamom growing in the Naga Hills was forwarded last year to the Reporter on Economic Products to the Government of India. He identified it as *Amomum subulatum*, the plant which furnishes the greater cardamom of commerce. The Darjeeling Hills are at present the chief source of supply of this product. The retail price of the article at Calcutta varies from Rs. 40 to Rs. 50 per maund. The sample from the Naga Hills was judged by experts as rather bitter, which, however might have been due to want of the proper treatment before putting on the market. At present the wild cardamom of the Naga Hills is put to no use, and the Nagas are quite ignorant of its value.

### FRENCH GUINEA PRODUCE.

The import of kola into French Guinea during 1903 amounted in value to 37,397*l.*—a large increase on the previous year. It practically all came from Liberia, and although kola is grown in French Guinea, the quality is not so good as that produced in Sierra Leone and Liberia. This shows the futility of the attempt (says the British Consul at Dakar) of the Senegal authorities, where kola does not grow, to encourage the import of French Guinea kola by practically doubling the duty on Sierra Leone nuts, when in French Guinea itself foreign kola is imported. Of the above amount 1,788*l.* was exported, of

which France and her colonies received 683*l.* and "other countries" 1,105*l.* Of beeswax French Guinea exported a total of 1,737*l.*, of which the United Kingdom and Sierra Leone received 1,015*l.*, Germany 679*l.*, France and colonies 4*l.*, and "other countries" 39*l.* Gum copal valued at 9,454*l.* was exported, of which the United Kingdom received 9,271*l.* and Germany 183*l.* Palm oil and kernels increased from 20,280*l.* to 24,104*l.*, the bulk going to Germany. Sesame has obtained separate mention, with a total of 4,951*l.*, and ground-nuts increased from 5,906*l.* to 10,584*l.* The mainstay of the exports continues to be rubber, which has almost doubled, having risen from 230,978*l.* in 1902 to 455,551*l.* in 1903, the United Kingdom taking 245,863*l.* The rubber all comes from Upper Guinea and the Soudan.

### PEPPER AT PENANG.

A correspondent at Penang has favoured us with some interesting information regarding new developments in the pepper-trade at that port, from which it appears that the industry is at present passing through an interesting period. As is well known, the port of Penang has for many years been a collecting centre and outlet for the neighbouring pepper-growing localities of Acheen (the northern province of Sumatra), portions of Siam, and the Malay Peninsula, the pepper being sent to Penang by the growers or the agents of the Chinese traders. These prepare it for export by subjecting it to a cleaning or washing process whereby the outer part of the pericarp is removed, and we then have the "white pepper" of commerce. It is afterwards sold to European merchants, who, in their turn, ship it to home markets. Latterly a Dutch company has subsidised some of the Achinese growers through a native chief favourable to the Dutch, and has also erected cleaning-works on the spot, so that the finished product may be shipped direct to Europe *via* Sabang, the port of Acheen. As the Acheen district sends by far the greater proportion of pepper that enters the Penang market, it is a serious matter to those interested in the industry, for it will be seen that this is an attempt on the part of the Dutch to confine the trade within their own country. On account of the distrust with which the Achinese view the Dutch, and the intense hatred they entertain for their conquerors, it seems uncertain whether the company will succeed in diverting trade from Penang. This latter view is a factor that will have to be taken into consideration, especially as the Achinese are very well satisfied with the treatment they receive at the hands of the Penang traders. In any case, Penang will continue to collect and export pepper, for there are many small localities where it is cultivated and for which this port is the most convenient centre.

In obtaining the above facts, it was the privilege of our correspondent to inspect the largest of the pepper-cleaning works at Penang, where the owner during the past year had treated 40,000 piculs (1 picul = 133½ lbs.) of black pepper, and as some doubt exists as to the actual method employed in washing pepper a brief and up-to-date description of the process may be useful. There are four such works in Penang, and all owned by Chinese. The pepper as it arrives is in a perfectly dry and ripe state. It is first passed through a winnowing machine to separate *débris*, after which it is transferred to a large wooden tub. Here it is soaked with water for some days and the useless fruit, rising to the surface, is thrown away. After soaking, it is subjected to "treading" by Chinese coolies, at which stage it is fairly clean. It is then placed in another tub and the process repeated, and finally finished off in a third tub. It will be understood that the tubs are placed in series, and as the cleaning progresses the fruit is passed forward to other tubs, the whole process occupying about a month. The pepper is next dried in the sun, the fruit being laid out on sackcloth and raked over from time to time. About three days is necessary to complete the drying, and if the weather is favourable the produce is simply covered over at night, but if unsettled weather prevails it is stored in sheds at night. After drying, the pepper is slightly limed and packed for shipment in gunny bags containing 1 picul.



## At the Counter.

Some of the things that happen in the Chemist's daily round which help to show how good a Guide, Philosopher, and Friend he is to the Public.

IN HIEROGLYPHICS the following, which a subscriber in the North recently received, will take a lot of beating :

*Thank of course  
if you please it is as for  
the stretch*

He supplied what was wanted. We do not say what it was, as this enables us to offer three copies of Ince's "Elementary Dispensing Practice" to the first three apprentices who send in correct renderings to us on postcards, endorsed by their employers, "The writer is my apprentice" (name and address).



INNOCENCE.

Chemist (to very small boy wanting a feeding-bottle for his mother, and who has lost his money): "But where do you live, my little boy?"  
Small Boy: "Come on wiv me and I'll show yer."

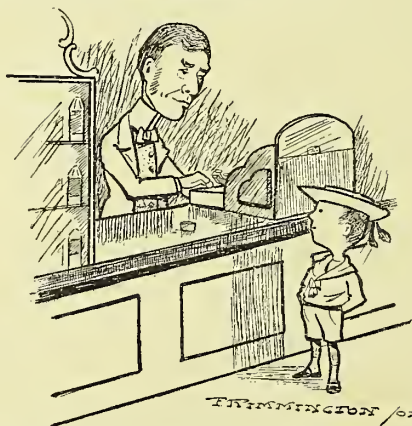
IN SCOTLAND.—In Paisley our brethren are asked for "McGregor's Mixture," "Cyanne peper," "Goplin for puting till a sore," "eyclipts oil," "brasak powder," "lodnam," "parragorm," "squeels and essence of candy-sugar." A family cough-mixture has the following composition: Cloridine, 2d.; paragoric, 1d.; syrrip of squele, 1d.; squell vinigar, 1d.; eppiccaca wine, 1d.; and morphia (sic!), 1d.—Miss Jenny Cullen, of Govan, has collected not a few curiosities, thus: "O De Clone," "Auldecolonge," "Synmesame," "greengoil powder," "syflour," "saferon," "morphi capisills for encerting into the bowells," "actuan-ick wine," "fooler's earth," "castoroil capistels," "glisgerine," "sweeten powder for a man," "hicker picker," "vegiblenafter," "Rucshell salts," "brackine-ointment," "gamge wed."—From another Far North source we have "Duke of Liptons Sweeties," "Klondike sweets," "3 hapnies worth o' hostan sweeties," "Condses Fluead," "Sulphur zink," "Best marke Broun," "melat spirits," "Lectric Powder," "Better alose," "Alloa Tablets," "Aclepis Ile," "Patronysed milk," "Distracted Malt and Oil," "1 Bottle of general Odegtime sent," "Spurgeons Lint," "Carabarute," "Bot Pinky Water," "Toothache Jam," "Reckless Powder," "Auntipiereen powder,"

"Bocks nit saw," "2 oz. Barr Barrie Bark," "1d. Cayan Poads," "1d. syamen sticks," "1d. Arnatia," "Essons of sinney," "½ oz. Powdered Nighter," "Glisan of tannan," "Oil of Kagga put," "1d. Oil of Runapeer," "Synade of Potasia," "Spirits Cphnor," "Accitric of macnissia," and "Mental Powder."



"Penn'orth of pills, please."  
"Antibilious?"  
"No—uncle."

A BATCH FROM BROTTON.—The following are the most unique among the large number of written counter-requests sent us by Mr. T. F. Walker, of Brotton: "1d. worth hanky panky"; "1d. of bichours powder"; "3 drams of kaian and ½ ozn of tataseaerd," "dyehalcome scaदेing milk from breast"; "Godforcorle"; "Dr. Bloord's pills"; "surup suills"; "Violet Deparm sent"; "Redpersquibet"; "Opydildock, or Appledildoc"; "liquid saliona," "gilycrine," "gold ominment," "grounded genuine"; "Keeking's powder" and "hole linesside."

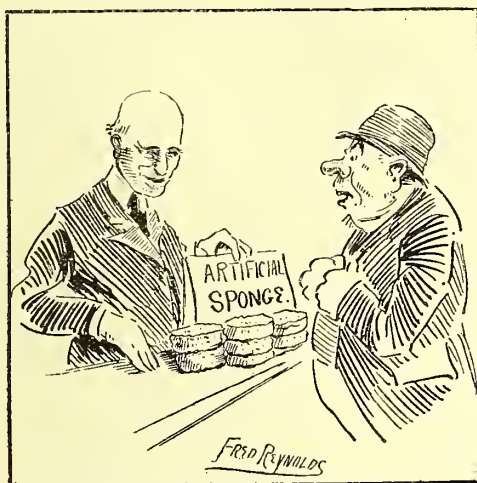


"Did that emetic do the servant any good, Tommy?"  
"I do'n' know, but she said she couldn't keep it down."

SELECTIONS FROM SUNDERLAND.—Tyneside seems teeming with orthographic quaintness. For instance, "1d. of Blongo, 1d. of Pinker, 1d. of Pummy stone." That seems murderous enough but "anacide essens" seems like something killing likewise. Then "2d. Leque Victual powder to take inward" is somewhat of a puzzler; and at the first blush "2 penneth Tamers" looks difficult. Then comes "Jlesrine, Padre Jorey, surp of squirle, and Lordmen" a lovely combination. "Acefecite" is comparatively easy and "Euticlypeite tablit"; but "sandsparrillia balls and Tampran" want a little thinking out. "Emerication" is



probably made at Slough and not in the United States. "1 square of cumber and grilicine soap," "Brunasic-acid," "Hallam," "Krusher pills," "Bols de Mena," "Grey sulphur of revine," "tinture mur," "Birkney pitch," and "fullensearthdust," although some of them have a distinctly foreign appearance, were easily translated by Mr. E. R. Cherrett, of Monkwearmouth. "Schlach varnish" might appear Teutonic to anyone but a chemist, and "Marr Seed" is a well-known variety. "Deacinal plaster" has nothing episcopal about it. "Clorader lime," "Die acklam," "Cabnet of Irion"; "essences of scenner"; "Hydine unadulterated"; "Xink powder," "Tarmon," "bitterallowis"; "Elaeber"; "essence of Roily," "shilleys," "infants createra"; "qr oz ophia, and qr oz Heatier"; "Burnisanua," "Move dye," "Apodeldog," and "Dines Water" are also included in Mr. Cherrett's wonderful collection. Those familiar with ancient remedies will be interested in the requests for "1d. of foxenlungs," "oil of worms," and "snail horn oil." A mysterious order is "1d. write for a woman."

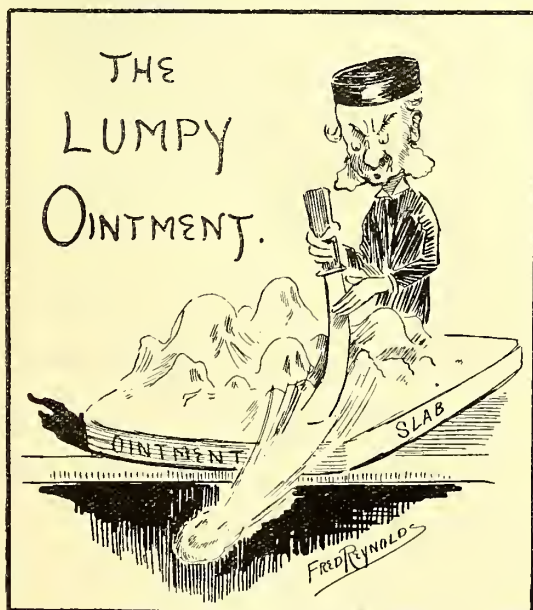


THE OTHER SENSE.

Boozer to Chemist: "Lend me a bob."

Chemist: "There seems to be something very real about you!"

FORCE.—A Glasgow subscriber recently got the following: "Please give 2 Batters for to nock milk from Breast."



What Happened to Jones.

ANOTHER OF THE SAME.—An ingenious letter of the "free sample" type received by Mr. F. Gibson, chemist and druggist, Gooch Street, Birmingham, has been sent to us; it is as follows:

Insona Chamber,

Lonely House, Winnebuh.

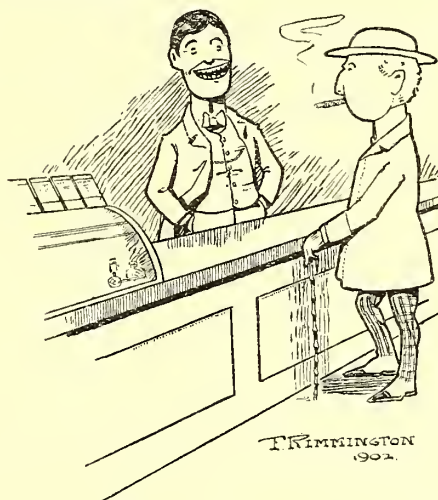
Dear Sir,—Your name found in some Magazine which felt me much happiness to lay before you that, I am suffering from Nervousness of which even your recommendation can cure it so try and send me samples, and let me try it; but when doing me better you will receive something from me as a thanks in result. My nervousness has desisted me of working about 6 months ago. Even I wrote some merchants in London but they sent me some which is not good; so you may try and read this plainly without any troublesome but I am suffering. You just prove with my hand writing. No more to say than in expectation. I am little better hoping you the same.

I am yours truly.

WM. S. SAM.

Mr. Gibson advised Mr. Sam to consult a European doctor.

MISCELLANEOUS.—A "recite for the eys" contains "tincker of okem and colard warter." A Walthamstow gentleman ordered "1 pound of Flyblow" for photography, and his wife wanted a 6d. bottle of "Home and Colon."



Customer: "I want some more Tamar Indien."

Assistant (who reads "Scraps"): "I'm afraid we haven't any tamer than the last you got. Ha! Ha!! He!!!"

A lady at Barking recently in conversation with her family chemist regretted the loss of her teeth as she could no longer "domesticate" her food. At Chelmsford "yellow saphon," "lover water," and "luckness powder" are occasionally inquired for. Mr. J. H. Gostling, of Halesworth, recently had a request for "something to send the measles out of a child 4½ years old." "Billy Bean's pills" have been inquired for at Buckingham. An order for "2d. off tincure of furetiy" was given to Messrs. Bainbridge & Finlayson, of Stockton-on-Tees, and tinct. asafetida was supplied. Mr. G. B. Moultrie, of Hadleigh, was asked for "Ink ointment," "Antepills," and "Fullersearthenware powdre." A little girl at the counter of a Manchester pharmacy wanted "Condy's fluid in the seed." Mr. F. C. Isham Wilson, of Dartford, sends a request for Veno's Lightning Cure written on a piece of wood-shaving! Among Mr. Wilson's other oddities are demands for "carpenter of iron," "bismic losingers," "pemoghe potash," and "perassic powder."

FROM IRELAND.—Mr. Edward A. Whelan, M.P.S.I., Rathkeale, recently got the following written order: "Thruppence worth of rat pisin, the're beginnin' to root a consecrated flure I have in the pig house."

"YOUR son shows decided indications of astigmatism, and his case should be attended to without delay," wrote the schoolmaster of a Scotch town to a boy's father. The next day the father sent the following answer: "Dear Sir,—Whip it out of him.—Yours truly."



## Drug-trade Tokens.

Further Examples and Particulars in regard to these interesting Relics.

THIS interesting department of pharmaceutical antiquities, which was introduced to the readers of the *C. & D.* in the Winter Issue of last year, has brought us several appreciations. One correspondent has compiled a list of seventeenth-century tokens referring to the drug-trade, which he asks us to find room for in the *C. & D.* We accede to his request not only because the list appears to be a very complete one, but because of its value to those who, possessing old-established businesses, are desirous of obtaining additional evidence of the antiquity of their pharmacies. It should be noted that upon these tokens a great variety of devices and signs are to be found, but the most frequent is the arms of the Apothecaries' Society—viz., Apollo holding a bow and arrow surmounting a serpent, occasionally with their motto, "Opiferque per orbem dicor." The mortar and pestle, too, is frequently found; also the boar, which appears to have been a deviation from the Society's crest—a rhinoceros. Upon one token—that of a Snow Hill apothecary—is seen a cock, this bird being the general object in sacrifice or thanksgiving in the Temple of Æsculapius by those who recovered from any disease.

The sketches give an idea of the variety that exists in the design of these tokens. In the following list "O." stands for the obverse side of the coin, "R." for the reverse:

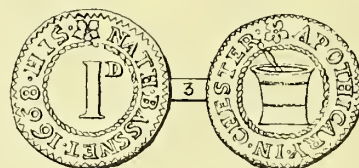
### LONDON.

- O. "Iam<sup>s</sup> Gover. Apothecary" (A gate.)
- R. "At Temple Bar. 1657. I. K. G."
- O. "Sam Wright. Apothecary" (A horse and crown.)
- R. "in Grvb Street. 1669. His Half-Penny." (Now Milton Street, Finsbury.)
- O. "Calixt. Rust. in." (A rhinoceros.)
- R. "The Strand." (A pot of lilies.) (This is supposed to have been issued by an Apothecary.)
- O. "A. M. C. Apothecary."
- R. "Snow Hill." (A cock on a spire.)
- O. "Abra. Hvdson. Apothecary. at." (The Apoth<sup>s</sup>. Arms.)
- R. "Ye Blew. Boar. in Chancery Lane." (A boar.)
- O. "At the Inner Temple." (A mortar and two pestles.)
- R. "Gate in Fleet Street. I. I. S."
- O. "Phillip Wetherell in" (The Apothecaries' Arms.)
- R. "Great Queen Street. 69. His Half Penny. P.M.W."
- O. "Edw. Iames Greens." (The sun.)
- R. "Rents Fleet Bridg." (A mortar and pestle.)
- O. "In Kings Streete" (A mortar and pestle.)
- R. "Westminster. 1651. E. A. M."

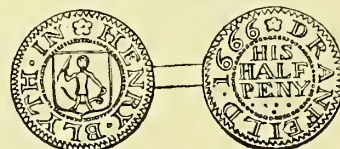
### PROVINCIAL.

- O. "Joseph Dewes of" (A mortar and pestle.)
- R. "Allcester. 1654. I. B. D." (Alcester, Warwickshire.)
- O. "John Allington. 1666—His Half Penny."
- R. "Apothecary in Banbvry." (The Apothecaries' Arms.)
- O. "Beniamen Hibberdine." (The Apothecaries' Arms.)
- R. "Apothecary. Banbvry—B.A.R."
- O. "John Weightman in." (The Apothecaries' Arms.)
- R. "Banbvry. Apothecary.—I. M. W.—1663."
- O. "George White—" (A mortar and pestle.)
- R. "in Basingstoake—G. W."
- O. "Francis French of Bawtry—His Half Penny. F. A. F."
- R. "In Yorksheere. Apothecary." (The Apothecaries' Arms.) (This token is octagonal.)
- O. "Richard Ambler. Apothc. His Half Penny. 1670."
- R. "In Bishops Castle Sqvare Dealing."
- O. "Richard Haworth" (The Apothecaries' Arms.)
- R. "of Blackburne. 1666. His Half Penny." (And Blackburn Lanc.)
- O. "Rob. Bishopp." (The Apothecaries' Arms.)
- R. "Of Bridport—R. B."
- O. "Danyell Taylor." (A mortar and pestle.)
- R. "In Bridport. 1666. D. T."
- O. "George Fellsted." (A mortar and two pestles.)
- R. "In Cambridge—G. A. F."

- O. "John Tyler in." (The Apothecaries' Arms.)
- R. "Chesham. 1665. I. A. T."
- O. "Thomas Heath. An Apothecary."
- R. "At Chester. 1667. His Penny."
- O. "Nath. Bassnett. 1668. His 1<sup>d</sup>."
- R. "Apothecary in Chester." (A mortar and pestle.)



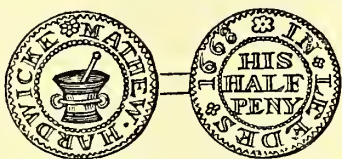
- O. "Samvell Farmer in." (The Apothecaries' Arms.)
- R. "Chipping Norton—S. E. F."
- O. "T. P. Apothecarie."
- R. "In Coventry." (The Apothecaries' Arms.) (Believed to have been issued by Thomas Pidgeon.)
- O. "John Iames. 1666. (A mortar and pestle.)
- R. "In Crewkerne. I. T. L."
- O. "John Shire." (A mortar and pestle.)
- R. "In Crookhorn. 1666. I. A. S."
- O. "Henry Holmes." (The Apothecaries' Arms.)
- R. "In Darby. 1664. His Half Penny."
- O. "Phillip Cary." (The Apothecaries' Arms.)
- R. "In Dartmouth. 1663. P.C."
- O. "Samvell Belcher 1668" (The Apothecaries' Arms.)
- R. "in Dedington—His Half Penny. S. B. B."
- O. "George Rasine of" (The Apothecaries' Arms.)
- R. "Doncaster. 1665. His Halfe Penny." (George Rasine was Mayor of Doncaster in 1665.)
- O. "George Rasine Junior of Doncaster his 1/2."
- R. "1668. G. M. R." (The Apothecaries' Arms.)
- O. "Henry Blyth" (The Apothecaries' Arms.)
- R. "In Dranfield. 1666. His Half Penny." (Dronfield, Derbyshire.)



- O. "John Bowey. 66. (The Apothecaries' Arms.)
- R. "Apothecary in Dvrham."
- O. "William Dent." (A mortar and pestle.)
- R. "Apothecary. 1666. In Dvrham."
- O. "Henry Bigg. of" (A mortar and pestle.)
- R. "Felstead. 1669. His Half Penny."
- O. "Richard. Barber. Mercer." (The Apothecaries' Arms.)
- R. "His Half Penny. in Gainsbrough. 1668. R. B."
- O. "Nicholas Lane. Apoth" (The Apothecaries' Arms.)
- R. "in Gloucester. 1656. N. L."
- O. "Andrew Poole" (The Apothecaries' Arms.)
- R. "Of Grantham. 1657. A. A. P."
- O. "Thomas Martin" (The Apothecaries' Arms.)
- R. "of Hadleigh. 1667. T. S. M."
- O. "Thomas Bradshawe" (The Apothecaries' Arms.)
- R. "in Harwich. 1667. T. B."
- O. "W. Drage. of Hitchin. 1667. His Halfe Penny."
- R. "Opiferque per orbem dicor." (The Apothecaries' Arms.)
- O. "Richard Beavmond in" (The Apothecaries' Arms.)
- R. "Ipswich. Apothecary. R. B."
- O. "Samuel. Dover. Apothecary."
- R. "In Ipswich. His halfe. penny." (This token is heart-shape.)
- O. "Robert Tyner" (The Apothecaries' Arms.)
- R. "of Ipswich. 1655. R. T."
- O. "W. Wye. In Ipswich."
- R. "Apothecary. 1663."

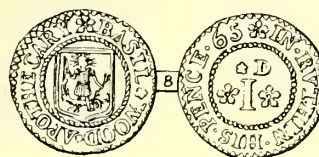


- O. "Matthew Hardwicke" (A mortar and pestle.)  
R. "in Leedes. 1668. His Half Penny."



- O. "Matthew Hardwicke" (A mortar and pestle.)  
R. "William Waygh. 1668. Their Halfe Penny."  
(Resided in Briggate, Leedes.)
- O. "Nicholas Rodsby." (The Apothecaries' Arms.)  
R. "in Lincolne. N. R."
- O. "Iohn Pemberton" (The Apothecaries' Arms.)  
R. "in Liverpoole. 1666. His Half Penny."  
(John Pemberton was bailiff of Liverpool in 1660.)
- O. "Iane Small of" (The Apothecaries' Arms.)  
R. "Lowth. 1668. Her Halfe Penny."  
(Louth.)
- O. "Edward Davies. 1669." (The Apothecaries' Arms.)  
R. "In Lvdlow. Apothecary. His Half-Penny."
- O. "Edward Billings." (The Apothecaries' Arms.)  
R. "Lynn Regis. 1656. E. E. B."
- O. "Robert Fravnces" (The Apothecaries' Arms.)  
R. "in Lynn-Regis. R. F."
- O. "Elias Ferris. Apothecary" (The Apothecaries' Arms.)  
R. "in Malmsbvry. 1669. His Half Penny. E. A. F."
- O. "Iohn Charlton" (The Apothecaries' Arms.)  
R. "In Manchester. I. C."
- O. "Robert Clegge" (The Apothecaries' Arms.)  
R. "In Mansfield. 1659. R. A. C."
- O. "Elizabeth Lyng" (A mortar and pestle.)  
R. "in Harbrow. E. L."  
(Market Harborough, Leicestershire.)
- O. "Iane Blatchford" (A mortar and two pestles.)  
R. "of Movntogen. I. H. B."  
(Montacute, Somersetshire.)
- O. "Henry Cam. Apothecary" (The Apothecaries' Arms.)  
R. "his Halfe Penny in Newarke. 1666. H. C."
- O. "Iohn Berridge in" (The Apothecaries' Arms.)  
R. "Nottingham. Apothecary. I. B."
- O. "Sam. Garner. Apothecary" (The Apothecaries' Arms.)  
R. "Of Nottingham. S. G."
- O. "Steven Garner of" (A rhinoceros.)  
R. "Nottingham. S. G."
- O. "Ioseph Innocent" (The Apothecaries' Arms.)  
R. "of Nottingham. 1667. His Half Penny."
- O. "Sam. Smith. Apothecary" (The Apothecaries' Arms.)  
R. "of Nottingham. S.S."
- O. "Samvel Smith. Apothecca." (A rhinoceros.)  
R. "His Half Penny in Nottingham. 1667."
- O. "Henry Tryman" (The Apothecaries' Arms.)  
R. "in Nottingham. 1664. His Half Penny."
- O. "William Baley of Oxon" (A mortar and two pestles.)  
R. "At the Morter and Pest. W.B."
- O. "William Potter" (The Apothecaries' Arms.)  
R. "Apothecary in Oxon. W. A. P."
- O. "Edward Perkins. His Half Penny" (The Apothecaries' Arms.)  
R. "of Perstore. Apothecary. 1664. E. P."
- O. "Iohn Cadman of" (The Apothecaries' Arms.)  
R. "Preston and Garstang. His Half Penny. 1668."
- O. "Marie Cressener in" (A mortar and pestle.)  
R. "St. Edmonds Bvrey. M. C."
- O. "Thomas Amies of" (The Apothecaries' Arms.)  
R. "Saint Neotts. 1667. His Half Penny."  
(Huntingdonshire.)
- O. "Iohn Hancock. in New. I. H."
- R. "Sarvm. Apothecary." (The bust of a Turk.)  
(Salisbury.)
- O. "Iohn Hvnt. Apothecary" (The Apothecaries' Arms.)  
R. "In Saxmondham. 1669. I. E. H."
- O. "Gilbert Holdsworth" (The Apothecaries' Arms.)  
R. "In Sheffield. 1670. His Half Penny."
- O. "Isack Williams" (A mortar and pestle.)  
R. "At Sherborne—1664. I. W."

- O. "Robert Fitzhugh" (The Apothecaries' Arms.)  
R. "In Shipson. 1664. His Half Penny."  
(Shipston-on-Stour.)
- O. "Tho. Eady. Apothecary. T. E."
- R. "In Sovtham. His Half Penny. T. E."
- O. "Iohn Rogers. 1664." (The Apothecaries' Arms.)  
R. "In Stamford. I. R."
- O. "Tho. Gyles. Apothecary" (The Apothecaries' Arms.)  
R. "In Stafford. His Halfe Penny." (The Stafford knot.)
- O. "William Sqvier" (The Apothecaries' Arms.)  
R. "in Steining. 1669. His Half Penny."
- O. "Thomas Broasgrove" (The Apothecaries' Arms.)  
R. "In Stow. 1670. His Half Penny. T. E. B."
- O. "Edward Morgan" (The Apothecaries' Arms.)  
R. "of Tanworth. 1668. His Half Penny."
- O. "Basil Wood. Apothecary" (The Apothecaries' Arms.)  
R. "in Rvthin. His Pence. 65. 1<sup>d</sup>."



- O. "Nich. Straight. Tewxbvry. N. M. S."
- R. "Opiferque per orbem dicor." (The Apothecaries' Arms.)

## IRELAND.

- O. "Alexander Aickin. Marchant." (A lion with pestle and mortar.)  
R. "In Skinnerow. Dvblin. 65. A.M.A. 1<sup>d</sup>."
- O. "Henry Bollardt" (A pot of lilies.)  
R. "Apothecary in Dvblin. H.E.R." 1654. 1<sup>d</sup>."
- O. "Gerrard Colley. At. Red" (A broad cross.)  
R. "in High Street, Dvblin." (Apothecary.)
- O. "Edward Harris" (A mortar and pestle.)  
R. "in Copper Ally. Dvblin. 1<sup>d</sup>."
- O. "Robert Meller. in" (A mortar and two pestles.)  
R. "Castle Street. Dvblin." (Apothecary.)
- O. "Marke. Qvine. Apothecary" (A winged horse.)  
R. "In Dvblin. 1654. 1<sup>d</sup>."
- O. "Henry Rvgge. Apothecary" (A unicorn rampant.)  
R. "in Castle Street. Dvb. H.R. 1<sup>d</sup>."
- O. "Rob. Nellson. of" (A mortar and pestle.)  
R. "Dungannon. Pothery." (A still.)
- O. "Richard Pearce of" (A mortar and pestle.)  
R. "Limrick. Apothecar. R. M. P. 1668."
- O. "James Morrison of" (A mortar and pestle.)  
R. "Londonderry. Mar(chant) 1<sup>d</sup>."
- O. "Mary Stephens of" (A mortar and pestle.)  
R. "The City of Waterford. M S. 1667. 1<sup>d</sup>."

## FRENCH TOKENS.

The notes dealing with drug-trade tokens have naturally been confined to the English side of the subject, but the "Jetons" of the French Apothecaries' Corporations, &c., are interesting enough to merit a postscript.

In those palmy days of heraldry, the Middle Ages, the belted knight was not prouder of his family coat of arms than the Guild or corporation of their trade banner (nor were these latter always displayed on peaceful occasions—witness the Parisian apothecary-grocers in helmet and hauberk, mobilised in 1467, when "King Edward of England" promised the French capital a visit of a less pacific character than that of last year). The device which figured on this flag was repeated on the Great Seal of the Guild, on their tokens or jetons, and often carved on their shop-fronts. "Jetons" in France appeared to have been used at that time to facilitate commercial transactions, though nowadays they principally serve as attendance-tokens. The curious habit of paying for attendance still exists at the Academy of Sciences. A fixed sum is divided among those present, so that in bad weather, or when everyone is out of town, the "jetons de présence" may be worth a sovereign apiece; while at a crowded meeting their value may be five shillings only.



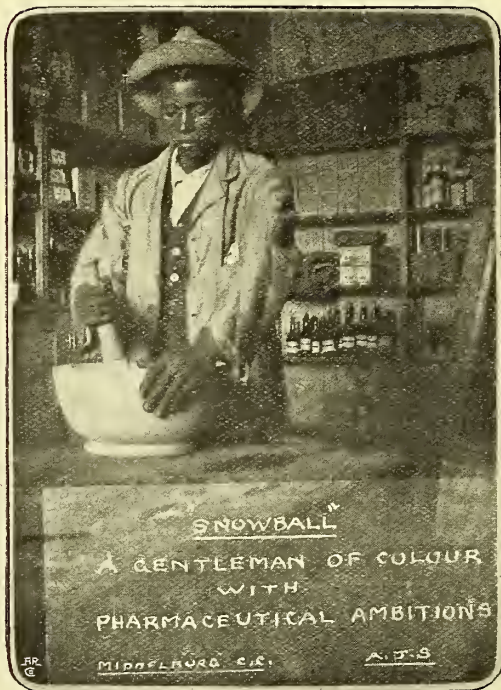
Few callings gave us such a rich and interesting choice of tokens as the apothecaries'. That of the Corporation of Rouen bears on one side the motto of the guild "Per Nos. Tuto et Fide," with a crown surmounting a pestle and mortar. On the other side the inscription above the beehive "Aris et Ægris," is an evident reference to the two branches to which the mediæval druggist attached equal importance—the candles for the altar and the drugs for the sick. The Paris College of Pharmacy token (see illustration), dated 1775, shows on the obverse the Cock of Æsculapius, with the usual serpent and the inscription "Et Vigil et Prudens," and on the reverse the well-known



modern motto and arms of the School of Pharmacy, the serpent round the palm tree—"In his tribus versantur."

Besides the corporate token, many apothecaries had a personal token. This usually bore what are called "Armes parlantes"—a pun on the owner's name. M. Dumortier, for instance, would naturally use a mortar, Dutilleul a branch or leaf of the lime-tree (still used as a popular herb-tea in France). The token of "L. N. Rouvière, pharmacop. Paris, MDCCVI," bears the motto "Terret sed sanat" with a serpent on a tombstone. Others bear flowers, scales, and similar devices. But we have possibly already said enough to show that there are in France many interesting examples of pharmaceutical numismatics.

#### From other Climes.



A Christmas Postcard by Mr. A. J. Sutherland, Chemist, Central Pharmacy, Middelburg, C.C.

## The Detection and Estimation of Arsenic by the Gutzeit Test.\*

By T. F. HARVEY, Ph.C.

*All figures refer to parts of arsenic trioxide.*

**A**LTHOUGH the Marsh-Berzelius test, with its modifications, is usually regarded as the standard method for the estimation of minute quantities of arsenic, the selection of the Mayençon-Bergeret test (Gutzeit) by Dunstan and Robinson in their report is to be commended, since the successful employment of the Marsh test requires considerable experience. It would have been better, however, had some simple form of apparatus been adopted in order to eliminate uncertainties and permit a more regular working of the test.

The Gutzeit test is often considered to be unsuited for quantitative purposes because doubt may arise as to whether the indication obtained is wholly due to arsenic. As will be shown later, antimony alone need be seriously considered in this respect, and apparently there is less likelihood of its being returned as arsenic than in the Marsh test. Experiments in support of this will be cited.

The limit suggested by Dunstan and Robinson of 4 parts of arsenic (=3 parts of arsenium) per million seems to be reasonable, with certain exceptions. For example, in the case of the mineral acids and liq. ammon. fort. the requirements are unduly severe for ordinary retail purposes. The suggested limit for ferrum redactum has been severely criticised, and certainly demands a purer article than is obtainable in commerce to-day. The purest samples I have met with contained 200 and 125 parts of arsenic per million. Out of eighteen samples of alum recently tested, only four fell within Dunstan and Robinson's limit. The majority ranged from 7 to 20 parts of arsenic per million. Borax commonly exceeds 4 parts of arsenic per million. Of copper sulphate only two samples have been tested, but these gave respectively—*commercial*, 300 parts per million, and *pure, recrystallised*, 40 parts per million.

The following is a detailed description of the manner in which the test is carried out in this laboratory. It has been in use for about twelve months, and with it more than a thousand samples have been tested. The method of working described brings the Gutzeit test to that high degree of delicacy and precision of which the Marsh test is capable in expert hands, while, being simpler and easier to perform, it admits of greater certainty of not losing any arsenic that may be present. The whole of the arsenic is eliminated and retained without uncertainty in a given time (fifteen minutes), while the apparatus is simple, easy to manipulate, and requires the use of only a small quantity of the substance to be tested.

A conical flask of from 150 to 200 c.c. capacity is fitted with a double-bored rubber cork, carrying a tapped funnel of about 25 c.c. capacity, which latter has a thin glass rod sealed on to the tap to render adjustment more easy—also carrying a plain thick-walled tube, 20 cm. long,  $8\frac{1}{2}$  to 9 mm. external diameter, 5 mm. internal diameter. This tube has the upper end carefully and smoothly ground, with a very small curvature, so that the inner edge stands slightly higher than the outer, and is fitted with a cap made from a piece of glass tubing of such internal diameter that it will not quite slide over the 20-cm. tube, but can easily be made to do so for a short distance (1.75 cm.) by slight grinding of the tubes together with emery and glycerin. The cap, which should be of fairly hard glass, about 9 cm. long, the upper end being drawn out so as to give an aperture of about 1 mm. internal diameter, carries a short glass sleeve about 1.75 cm. long, with ground-off ends, sliding freely inside it and kept in position when in use by a spiral spring as shown in fig. 1, the object being to hold securely and firmly a small disc of filter-paper between the lower edge of the glass sleeve and the upper edge of the 20-cm. tube. Springs made from hard-drawn brass wire (No. 21 Standard Imperial Gauge) are

\* A contribution from the Research Laboratory of Boots Pure Drug Co.



suitable, and ensure secure clamping of the paper all round. The apparatus is made by Gallenkamp.

In use the 20-cm. tube is loosely packed with cotton-wool, starting from the lower end with 6 cm. empty tube, then 8 cm. plain wool, then 5 cm. wool which has been

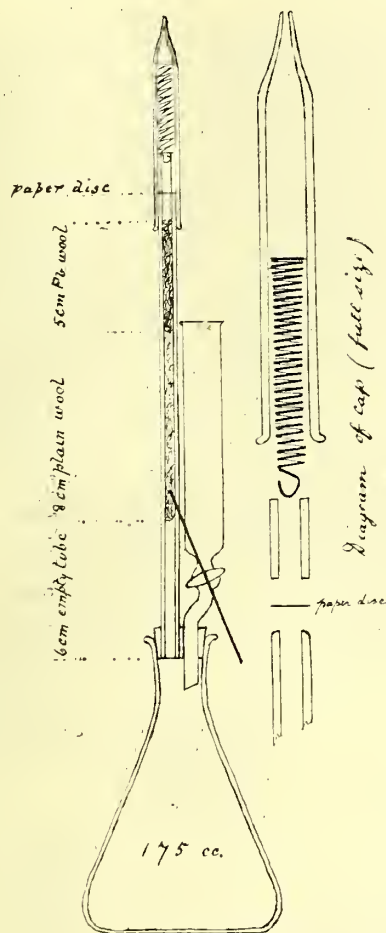


Fig. 1.

soaked in lead-acetate solution (10 per cent.) and dried at a low temperature. A wooden rod is preferable for packing the tube, to avoid splintering of the glass on the interior edge.

The discs of mercurial paper are prepared by soaking fairly thick filter-papers of medium surface (paper of very close texture is unsuitable, offering too much resistance—Schleicher & Schull's No. 597 answers very well) for a minute in 5-per-cent. w/v mercuric-chloride solution, removing excess of the solution by lightly touching the lower edge on clean bibulous paper, and drying at a low temperature. The paper is then folded several times, and discs are punched out with a sharp steel cork-borer of suitable size. The diameter of these should be about 8 mm., or slightly less than that of the 20-cm. tube. These are carefully preserved in a stoppered bottle of amber glass, and may be so kept for a long time.

In commencing a test, the apparatus, preferably in duplicate, is set up in a water-bath containing about  $\frac{1}{2}$  inch of water, which is maintained at a temperature of about 55° C. throughout the experiment. About 30 grams of thin granulated zinc is placed in the flask, and 20 c.c. of water added. Arsenic-free hydrochloric acid of sp. gr. 1.1 is then run in slowly through the tapped funnel, a mercuric-chloride paper is placed in position, the cap adjusted, and the hydrogen lighted at the nozzle as soon as it will burn (there is no danger at all of explosion). The tap is adjusted by means of the lever so as to maintain the flame at a height of from 2 to 3 mm. The test is

allowed to run in this way for ten minutes, at the end of which time the mercuric-chloride paper is exchanged for a fresh one (the first must show no stain), and the solution to be examined for arsenic is introduced through the funnel, usually mixed with an equal quantity of the HCl. The whole of this solution should be introduced within from five to seven minutes, more acid being then added and the test continued for a further ten minutes—i.e., about fifteen minutes from the commencement of adding the arsenic solution—the hydrogen flame being all the time maintained at its proper height. The whole of the arsenic (unless present in very excessive quantity) will then have been evolved from the flask, so that it is useless to continue the test for a longer time.

The paper is then removed and compared with a stain produced from a known quantity of arsenic in the duplicate apparatus—e.g., if 1 gram of substance has been used and it is desired to limit the quantity of arsenic to 1 part per 250,000 parts, a comparison stain is made at the same time and under the same conditions in the duplicate apparatus from 4/1000 mgm. of arsenic.

Stains of 2/1000 to 4/1000 mgm. of arsenic are the most easy of comparison. Above 5/1000 they become too dense and reddish coloured to admit of ready comparison. The difference between 3/1000 and  $3\frac{1}{4}$ /1000 mgm. of arsenic is just discernible.

When testing is being regularly performed it is far more convenient, and I believe quite as accurate, to prepare an artificial colour-scale from lemon and chrome yellows (Winsor & Newton's water-colours), which colours are fairly permanent, by painting paper of somewhat similar surface to the filter-paper used (Whatman's smooth answers) with patches of colour of varying shade, and then carefully finding, by a series of tests, the colour-value of the more suitable pieces in terms of 1/1000 mgm. of arsenic. These are then mounted on a card behind a piece of white paper in which a number of holes have been punched 5 mm. in diameter or slightly less. Two rows of holes should be made as in fig. 2, the white paper being attached to the card on sides *a*, *b*, and *c*, but left open on side *d*, so that each stained disc as it is obtained may be inserted by the aid of a pair of forceps behind the white paper and moved up and down to the holes on the right till it is seen with which stain in the left-hand column it most closely agrees. In this way very accurate comparisons may be made. Of course, when such a scale is adopted, it should be carefully preserved from light, dust, and laboratory-fumes; its values must be frequently verified with known quantities of arsenic.

The test just described possesses certain distinct advantages, viz. :

*As Compared with the Marsh Test.*—Less variation occurs between the indications obtained with the same quantity of arsenic. So small a quantity as  $\frac{1}{4}$ /1000 mgm. can be detected with certainty. Traces of air occurring in the flask are of no moment, whereas in the Marsh test they should be rigidly excluded. The continual packing of calcium-chloride tubes is avoided, as is also the trouble of drawing out and gauging the arsenic-tubes.

*As Compared with Dunstan and Robinson's Method.*—Greater precision, secure adjustment of the paper discs, more efficient removal of H<sub>2</sub>S, and perfect control of the speed of the reaction are all secured.

Great purity is requisite in the reagents used. These must be specially tested, 30 grams of zinc and a sufficient quantity of acid being used to run the test for at least half an hour (preferably one hour), at the end of which time no yellow stain should appear on the paper, or at any rate not more than  $\frac{1}{4}$ /1000 mgm.

To ensure accuracy the following conditions should be observed :

1. The water-bath should be maintained at about 55° C. to ensure elimination of all the arsenic in fifteen minutes. It may come off in the cold in this time, but at the elevated temperature it always does (see also Treadwell's "Analytical Chemistry," Vol. 1, p. 191).

2. In most cases the zinc remaining from an estimation should be rinsed and reserved for future use, the quantity each time being brought up to about 30 grams with new zinc. In addition to economy, this procedure seems somewhat preferable to the entire use of new zinc. Some variation in the quantity of zinc used is immaterial, but it should of course be nearly free from iron, and must be shown to be sensitive by making tests with 1/1000 mgm. of arsenic.



3. Agitation of the flask is essential three or four times during each test, or dense zinc-chloride solution may lie at

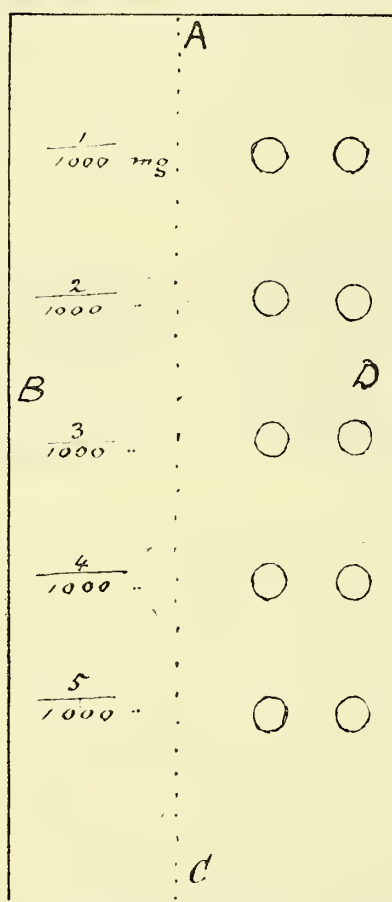


FIG. 2.

the bottom, causing removal of some of the arsenic from the sphere of action (*cf.* Dunstan and Robinson's report, p. 17).

4. The internal diameters of the 20-cm. tubes must be identical at the ground ends.

5. The tube should be entirely recharged with wool after each test, a stock of lead-acetate wool being kept for this purpose. This recharging ensures a constant humidity of the gas. If the wool is allowed to remain in the tube for two or three tests, the second and third tests will give stains slightly less than the first. In this connection it may be noted that by passing the gas over dry calcium chloride, quantities of arsenic varying from 3/1000 to 20/1000 mgm. entirely failed to give any indication of their presence, but when the gas was remoistened by means of a small roll of damp filter-paper, stains of the expected intensity were obtained.

6. The paper discs must be firmly clipped all round, so that the gas is compelled to pass through them. If any gas escapes at the edge, the stains will be uneven and useless quantitatively.

7. No appreciable colour should be visible at the back of the papers (except with large stains too deep for comparison). Papers which have been kept too long may allow the stain to penetrate into the substance of the paper instead of lying chiefly on the surface. Naturally thickness of the paper should be as uniform as possible.

8. The speed of the reaction should be properly regulated by the size of the flame.

9. Air (in quantity) must be removed from the apparatus by the first ten minutes' running, as it increases the depth of the stain.

10. Stains are best examined as soon as removed from the apparatus, necessarily in daylight.

11. As already pointed out by Dunstan and Robinson, weak solutions of arsenic are liable to some depreciation in strength on keeping; weak standard solutions (1 mgm. per litre, for instance) should therefore be freshly made up from stronger ones.

#### Treatment of Special Substances.

Several of the substances to which Dunstan and Robinson apply a preliminary distillation (Test B) can equally well be tested directly, thus simplifying the process. These I note:

**Bismuth Salts.**—A sample of bismuth carbonate showed by direct testing  $\frac{1}{1000}$  mgm. of arsenic per gram. Two separate distillations as Dunstan both gave the same result. Another 4 grams was then distilled, making the addition of 10/1000 mgm. arsenic to the retort. The total quantity of arsenic found was 10/1000 mgm., thus showing a loss in distilling of 1/1000 mgm. One gram was again tested directly, but making the addition of  $2\frac{1}{2}$ /1000 mgm. of arsenic to the flask. Arsenic found was  $2\frac{3}{4}$ /1000 mgm. (on 4 grams = 11/1000 mgm.), thus showing that the whole of the arsenic present is eliminated in direct testing, whereas a little may be lost by the distillation-method.

**Iron and Iron Salts.**—Although it is well known that any considerable quantity of these causes retention of the arsenic in the reduction-flask, yet it is possible to obtain the whole, or practically the whole, of the arsenic by direct testing, if only the quantity of iron be kept small enough. The maximum quantity (calculated as metallic iron) present should not exceed 0.1 gram (using 30 grams of zinc). This quantity of iron is large enough to permit the application of Dunstan's limit in all cases. The following experiments will be seen to justify the above assertion. A sample of ferrous sulphate, proved to yield no arsenic by distillation, etc., was tested as follows:

4 grams ferrous sulphate plus 3/1000 mgm. arsenic gave 1/1000 mgm. only (three tests in agreement).

1 gram ferrous sulphate plus 3/1000 mgm. arsenic gave 2/1000 mgm. (a repeat gave  $2\frac{1}{2}$ /1000 mgm.).

0.75 gram ferrous sulphate plus 4/1000 mgm. arsenic gave  $3\frac{1}{2}$ /1000 mgm. barely.

0.5 gram ferrous sulphate plus 4/1000 mgm. arsenic gave  $3\frac{1}{2}$ /1000 mgm.

0.5 gram ferrous sulphate plus 3/1000 mgm. arsenic gave 3/1000 mgm.

The following experiments have been made with reduced iron:

	Distillation Method	Direct Method
Sample 1	300 per million ;	300 per million
	300 per million ; residue further distilled gave no more ar- senic	
Sample 2	200 per million	200 per million using 0.02 gram iron
Sample 3 (experimental sample prepared in laboratory specially free from arsenic)	15 per million	15 per million using 0.1 gram iron ;
		15 per million using 0.1 gram iron

Of course, after making a test with iron present in the apparatus the zinc should be rejected and not used for further testing.

In the above tests the iron was dissolved according to Dunstan's directions for the distillation-test, but for the direct testing it was brought into solution by means of hydrochloric acid and potassium chlorate, as described in the German Pharmacopoeia, most of the chlorine being boiled off and the remainder removed with hydroxylamine hydrochloride. Stannous chloride should not be used as a reducing-agent in the case of iron salts, as it favours reduction to metallic iron, and tends therefore to retain arsenic (see later note).

**Copper Sulphate.**—It is also possible to obtain the whole of the arsenic from this without distillation by limiting the quantity of copper salt used to 0.5 gram. A solution of cuprous chloride was prepared specially free from arsenic, and used in the following experiments. By distilling the equivalent of 2 grams copper sulphate with 2 grams arsenic-free ferrous sulphate, and 2 grams potassium metasilphate, total arsenic found in the 2 grams =  $\frac{1}{2}$ /1000 mgm. only. Tested directly without distillation—

Equivalent of 2 grams gave 0/1000 mgm.

Equivalent of 2 grams plus 3/1000 mgm. arsenic gave  $1\frac{1}{2}$ /1000 mgm.

Equivalent of 1 gram plus 3/1000 mgm. arsenic gave 2/1000 mgm.

Equivalent of  $\frac{1}{2}$  gram plus 3/1000 mgm. arsenic gave 3/1000 mgm. fully.

Half a gram, therefore, would appear to be a safe quantity to use.



The following results were all obtained on the same sample of copper sulphate, from which it appears that distillation of this salt, with potassium metasulphite alone as reducing-agent, does not yield quite all the arsenic present.

<i>Distillation (Dunstan).</i>	<i>Directly tested.</i>
30 per million	40 per million
31 per million	35 per million
35 per million	40 per million

The last distillation was made with 2 grams copper sulphate plus 2 grams arsenic-free ferrous sulphate, etc., to assist in the reduction.

**Borax and Boric Acid.**—These substances should be dissolved in the minimum quantity of boiling water, and introduced rather quickly at the end of the ten minutes, without admixture with acid, but should be followed immediately by hydrochloric acid, sp. gr. 1.1.

The hydrides which might be expected to interfere are those of sulphur, phosphorus, antimony, selenium, and tellurium.

Sulphuretted hydrogen (and sulphur dioxide), when present, must be oxidised with bromine-water in acid solution, excess of the bromine removed chiefly by boiling, finally with a drop or two of stannous-chloride solution, or hydroxylamine hydrochloride as recommended by Dunstan and Robinson, so that the lead-acetate wool may never be called upon to remove more than minute traces of  $H_2S$ . It may be noted that the lead-acetate wool is a far more delicate indicator of  $H_2S$  than mercuric-chloride paper, so that a dangerous quantity cannot escape notice. For instance, a blank test was run for three-quarters of an hour, omitting the lead-acetate wool, and the stain produced (by  $H_2S$ ) was only equal to  $\frac{1}{2}/1000$  mgm. arsenic, but lead-acetate wool, if present, would have been blackened for a short distance. The darkening should not extend to more than one-third of the wool; usually it is much less.

Phosphoretted hydrogen practically never occurs, except when testing hypophosphites, and these must be oxidised to phosphate.

Antimoniuretted hydrogen, when present in sufficient quantity, interferes with the pure yellow colour given by three or four thousandths of a milligram of arsenic. I have not been able to obtain, however, anything but slight grey stains from antimony alone under the working conditions described, even with quantities up to 100/1000 mgm.  $Sb_2O_3$ . The influence of antimony upon the arsenical stains is shown in the following experiments, but out of many hundreds of tests I can only recollect two or three cases in which the stains had a peculiar appearance which might possibly have been due to the presence of antimony. It seems only reasonable to conclude that antimony in interfering quantity is of very rare occurrence, and for all practical purposes may be left out of account. If a peculiar or unsatisfactory stain is at any time obtained, antimony can be specially searched for, and if necessary separated by distillation with hydrochloric acid, etc.

3/1000 mgm.  $Sb_2O_3$  plus 3/1000 mgm. arsenic together gave a normal 3/1000 arsenical stain, the antimony not interfering at all.

6/1000 mgm.  $Sb_2O_3$  plus 3/1000 mgm. arsenic gave stain of about  $2\frac{1}{2}/1000$ , but difficult to judge, being of abnormal colour and distinctly visible at back of the paper.

10/1000 mgm.  $Sb_2O_3$  plus 3/1000 mgm. arsenic gave a dull stain of about  $2/1000$  visible on both sides of paper; and so on, 25/1000 plus 3/1000 mgm. arsenic giving a reddish-orange stain visible on both sides.

Thus small quantities about equal to the arsenic present do not seem to interfere, while larger quantities make themselves evident in the presence of arsenic by the characteristic penetrating effect produced on the stain.

Selenium and tellurium hydrides are apparently not formed under the conditions of experiment, separation of the elements occurring:

10/1000 mgm.  $TeO_2$  did not affect mercuric-chloride paper even when the lead acetate wool was omitted, nor was any stain obtained when the quantity was increased to 1 mgm.

Similar experiments made with  $SeO_2$  gave identical results. In no case was there any colouration of the lead-wool.

3/1000 mgm. arsenic plus 10/1000 mgm.  $TeO_2$  showed normal 3/1000 stain (two experiments).

3/1000 mgm. arsenic plus 10/1000 mgm.  $SeO_2$  gave in two experiments stains equivalent to  $2\frac{1}{2}/1000$  and  $2\frac{3}{4}/1000$  mgm. arsenic.

The presence of selenium, therefore, seems to have some slight inhibitive effect.

Stannous chloride solution has been found very suitable for removing free bromine subsequent to oxidation, only a few drops being needed. Many experiments have been made to ascertain whether it exerts any retarding influence on the evolution of arsenic trihydride, but it seems to be devoid of any such action when used in reasonable amount. A strong solution, such as that of the German Pharmacopœia, is suitable, being free from arsenic after it has deposited.

I would add in concluding that the various statements and results given throughout should be taken in conjunction with the conditions of experiment described. I desire to record my thanks to my assistant, Mr. J. C. Hibbert, who has done much of the experimental work.

## Pharmaceutical Education.

### A New Departure Takes in Proprietaries.

By WILLIAM MAIR, F.C.S.

ONE of my pleasantest and most interesting experiences during a recent visit to the United States was at the North-Western University College of Pharmacy at Chicago, where Professor Oscar Oldberg, in the course of a tour of the exceptionally well equipped and staffed laboratories, explained to me a new scheme he has in hand for affording the students instruction by a course of lectures on the numerous medical and other supplies which every first-class pharmacy is now called upon to furnish to the public, but which are not included in books.

First-class pharmacies are everywhere called upon to furnish to the community medical and sick-room supplies which are made by manufacturers. Among these are dressings, bandages, plasters, gauzes, dietetic preparations for children and invalids, sanitary appliances and preparations, medicinal preparations such as cannot be made by the pharmacist himself but which must be furnished by him, and often on the orders of physicians, and very many other things of a similar nature. Professor Oldberg argues that the pharmacist should have a sufficient knowledge of these products to handle them intelligently, serve his customers well, answer questions correctly, and to avoid as far as possible the causes of disappointment which are sure to attend the unintelligent vending of such goods. The scheme is ideal, and seems to lack only one feature—the instilling of the business instinct which is often so lacking in men otherwise eminently qualified.

A pharmacist who sells infants' foods and cannot tell his customers anything concerning the character and uses of such preparations does not properly perform his duties. Again, certain kinds of medicinal products are perishable, and it is the pharmacist's business to know what products belong to that class, so that he may avoid supplying spoiled or useless articles. Professor Oldberg believes that the only effective method of making the student sufficiently familiar with the "ready-made" legitimate products referred to consists in giving him an opportunity to inspect them as well as to hear about them. Accordingly he is arranging for a permanent exhibit of pharmaceutical apparatus and implements, miscellaneous dietetic and sanitary preparations and sick-room supplies, and other products which the pharmacist must furnish, which will include specimens illustrative of the character and finish of pharmaceutical preparations made by leading American manufacturers, such as fluid and solid extracts, powdered extracts, coated pills, gelatin perles and capsules, troches and tablets, medicated elixirs, syrups and wines, effervescent salts, digestive ferments, etc. All the important new remedies, including the so-called "synthetics," are also included in the exhibit, and any other therapeutic agents of modern medicine which are ordered by physicians.

This scheme struck me as so novel as to be worth the attention of pharmacists in this country. Fifteen years ago Professor Oldberg electrified his professional colleagues by insisting that the best way to train young pharmacists is to take them straight from school to the College of Pharmacy, give them a three-years' curriculum there, then draft them into the training ranks.



## Legal Reports.

### Trade Law.

**A Manager and his Accounts.**—A conviction under the Falsification of Accounts Act, 1875, has just been quashed by the Court for Crown Cases Reserved in circumstances that are of importance to all employers of manager-assistants. The prisoner (who was in the employment of a limited company) was charged with having omitted to enter in the cash-book a certain item received from a customer, with intent to defraud, and, further, with having made fraudulent entries. The defence set up was that the accused had introduced into the business certain private moneys, and, in order to repay these, had omitted to enter the one sum in question and had varied the other entries. The Chairman of Quarter Sessions, before whom trial took place, told the jury that even if they believed the story told by the prisoner as to repaying the money lent to the business, that would be no defence to the charge. The Lord Chief Justice, however, delivering the decision of the Court for Crown Cases Reserved, strongly criticised this, and said that it was possible to assume honesty although there was ignorance on the part of the prisoner, and the question of intent to defraud was one for the jury. A judge is not entitled in this way to withdraw from a jury an issue which it is their office to decide. The conviction therefore was quashed; and the moral of such a case is that employers must be very careful in what circumstances they allow the private moneys of their managers or other assistants to become involved with the moneys of the business.

**Sulphate of Copper in Green Peas.**—On Monday January 23, the Bexhill Magistrates had again before them for reconsideration by reference from the Judges of the High Court the case of Mr. J. L. Hull, a grocer, of Bexhill, who in April last was by them convicted and fined 5*l.* and the costs for selling bottled peas containing a percentage of sulphate of copper, which was declared by the analyst to be injurious to health. The conviction was appealed against, and the Court of King's Bench had referred the case back to the Justices for them to declare on two points—first, as to whether they intended to decide that the article of food so sold was, in fact, injurious to health, or, secondly, that the ingredient mixed with the article was injurious to health, and that the article as sold was not necessarily injurious to health. It was further ordered that in the event of the Justices deciding (1) the costs should be the respondent's, but if they intended to decide (2) the appellant's. Mr. F. W. Beck (Messrs. Neve, Beck & Kirby), who appeared for the appellants, contended that in the original prosecution the form of the information and summons did not seek to show that the article as sold was injurious to health, but rather that the ingredient contained in the article was injurious to health. The summons did not charge the defendant with that offence at all. Mr. Lawson Lewis, for the respondents, having replied, the Mayor said that at the time they made the conviction the Magistrates were quite convinced there was a certain quantity of sulphate of copper in the peas which rendered them injurious to health, and if the parties did not so understand the decision he was afraid it was his fault. Under the circumstances they found point (1) of the order of the High Court "that the article of food as sold was in fact injurious to health." Mr. Beck said the case would probably be taken again before the High Court.

### High Court Cases.

#### ALLCOCK PLASTERS TRADE-MARK.

In the Chancery Division on Friday, January 20, in the matter of the Allcock Manufacturing Co.'s trade-mark No. 263,720, Mr. Sebastian (instructed by Messrs. Field, Roscoe & Co., agents for Messrs. Bateson, Warr & Winsthurst, Liverpool) applied for leave to alter one line in the company's registered trade-mark.

Mr. Justice Joyce: Are you sure I am right in doing it?

Mr. Sebastian: Yes; I have a letter from the Board of Trade saying that they approve of the application.

Mr. Justice Joyce asked to see the mark, and what it was desired to take out.

Mr. Sebastian handed up the mark, and said he must tell his Lordship they had two marks exactly the same, except in one case the wording was in Spanish and in the other in English. They got leave to alter the English one last year. Now they were asking to alter the Spanish one in the same way. The notice of motion asked for leave to omit from the mark the words "Porous Plaster Co." and "the village of Sing-Sing of New York," and substitute for such words the words "the Allcock Manufacturing Co." The present

company are the successors in business of the Porous Plaster Co., and the village of Sing-Sing is no longer known by that name, so they wished to bring the mark, as they had already done in the case of the other one, into harmony with the facts.

Mr. Justice Joyce asked if there was a precedent for such an order.

Mr. Sebastian said there was. Mr. Justice Byrne did exactly the same thing with regard to an identical mark.

Mr. Justice Joyce: Yes, I think so.

Mr. Sebastian said his evidence was in order, and he had an affidavit of the secretary of the company. They were successors in business of the Porous Plaster Co., and they were the registered proprietors of the trade-mark.

Mr. Justice Joyce: You may take the order.

SACCHARIN CORPORATION, LTD., v. ALLIANCE CHEMICAL Co., LTD.

On Wednesday, January 25, Lords Justices Vaughan Williams, Romer, and Stirling heard the defendants' appeal in this case from the refusal of Mr. Justice Joyce to grant an application. Mr. Bousfield, K.C., for the appellants, said the plaintiffs had brought actions on twenty-three patents, but in this case had reduced the number to five. He considered this still too many, as the investigation, etc., would involve expense.—Mr. Fletcher Moulton, K.C., said the defendants are manufacturing in this country, and he had offered in the court below that if the defendants would say how they were manufacturing, the plaintiffs would agree to the order.—Mr. Bousfield did not admit that such an offer had been made, but he accepted it now.—An order was accordingly made for immediate discovery and inspection.

### Pharmacy Acts (Ireland).

On January 20, at the Newcastle (co. Down) Petty Sessions, Robert Hastings, druggist, Medical Hall, Newcastle, was prosecuted by the Pharmaceutical Society of Ireland, on two summonses, for compounding a medical prescription, he not being qualified so to do, and also for selling the prescription.

Mr. Joseph Donnelly, solicitor, Belfast, represented the Pharmaceutical Society, and Mr. D. McCaston, solicitor, Downpatrick and Newcastle, appeared for the defendant.

The Society's inspector deposed that he visited the defendant's place of business on October 21, and produced a prescription, which the defendant compounded and sold to him. A copy of the register for the current year was produced, showing that the defendant was not on the list of those entitled to compound prescriptions.

There was practically no defence put in on behalf of Mr. Hastings, and the Magistrates fined defendant 5*l.* on each of the two summonses.

### Medicine-stamp Act, 1812.

#### ALLEGED MUTILATION OF STAMPS.

THE hearing of the charge against Edwin Boden, Peel Green, of mutilating medicine-duty stamps was resumed at Eccles on Thursday, January 19. The previous hearing was reported in the *C. & D.* last week. The offence, as detailed by Mr. Simpson, of the Solicitors' Department, Somerset House, consisted in cutting 3*d.* stamps in two and using each part for a 1*s.* 1½*d.* bottle. The defendant is the proprietor of a medicine known as "Boden's Hot Drops," which has been sold by him for eighteen or nineteen years and by his father before him. On December 8 he took a number of bottles of the preparation to the warehouse of Messrs. J. Woolley, Sons & Co., Ltd., Manchester, this being the fifth consignment to them in 1904. Defendant presented an invoice, and this and the parcel were handed on to the patents department. The parcel contained three dozen bottles of "Hot Drops" 1*s.* 1½*d.* size, and half a dozen of the 2*s.* 9*d.* size, and 1*l.* 6*s.* was given to defendant in payment. Subsequently the bottles of medicines were placed in stock in the wrappers as supplied. On December 12 a boy from Boots, Ltd., Chorlton-on-Medlock, called for some medicines, including two bottles of the 1*s.* 1½*d.* size of "Boden's Hot Drops." These were supplied him, and, it being a cold morning, the boy placed the parcel under his arm and put his hands into his



pockets. He had not gone far when the parcel fell on to the pavement, and when he reached Chorlton and the goods were unpacked it was found that one of the bottles of "Hot Drops" had been smashed. On taking off the wrapper, half of a patent-medicine stamp was found. The witness who produced this admitted in cross-examination by Mr. F. W. Ogden (who appeared for the defendant) that it was an ordinary patent-medicine stamp, but on it had been written the word "Edwin." Another bottle of "Hot Drops" was consequently examined, and the stamp on it was not a complete one. Messrs. Boots' Chorlton manager stated that there were no other bottles of "Boden's Hot Drops" in stock, on the morning of December 12, than the two obtained from Messrs. Woolley that day. Messrs. Woolley were communicated with, and Mr. G. S. Woolley, the managing director, caused the portrait label on another bottle of "Boden's Hot Drops" in stock to be removed, and found that there was only half a stamp on the bottle. Information was then given to Mr. Elliott, Inland Revenue office, Manchester, and Mr. Boden was communicated with and asked for an explanation, the remainder of the stock at Messrs. Woolley's being immediately withdrawn from sale. Mr. Boden, it was stated, told Mr. Woolley that he had been short of money, that he had never done it before, and that it should not occur again. He asked that the matter might be overlooked, and Mr. Woolley replied that it was not for him to do so. Mr. Woolley stated that during twenty years the firm had done business with Mr. Boden, they had had nothing to complain of before. He had not had occasion to examine the stamps before. It was not possible to tell without taking the label off whether the bottle was properly stamped. Mr. Simpson intimated that the whole consignment bore only half stamps, and that there would possibly be further charges brought against the defendant. Another remand was granted, bail being renewed.

### Sale of Food and Drugs Acts.

#### COMPOUND LIQUORICE POWDER.

At Sheffield Police Court on January 20, Mary Crehan was fined 10s. inclusive, for selling compound liquorice powder which was certified to contain 16.5 per cent of sulphur.

#### QUININE-WINE.

At the Manchester City Police Court on January 18, James H. Squire, described as a "drug-merchant" and wholesale and retail wine-dealer, of 15 Ashton Old Road, Openshaw, was summoned for selling adulterated quinine-wine. Mr. Charles Estcourt, city analyst, said orange quinine-wine should contain 20 grains of quinine hydrochloride and no salicylic acid. The defendant's wine contained just half the required quantity of quinine and half a grain of the acid. The wine was therefore diluted, and the acid was to "keep" it. Defendant said he sold it as he got it. He got no warranty with the wine, but he had since received letters from the firm that supplied it. The correspondence was put in. The letters were dated from a brewery in Kendal. In one the writers stated their wine was according to the B.P. standard. The firm had sent a sample of the wine to a firm of analytical chemists at Burton-on-Trent and that firm's analysis was exactly the same as that of the city analyst. Thereupon the firm wrote expressing their regret that their man had made a mistake in putting the quinine into the wine. The Justices told the defendant that he had this remedy against the wholesale dealer; he should have secured a warranty. He would be fined 21s., and costs.

#### LIME-WATER.

BEFORE the Eye Borough Bench on January 21, Messrs. Cadge & Jeffery, chemists, trading under the style of Gostling & Co., were summoned for selling at a branch shop lime-water which was certified by the public analyst to be deficient in lime. Mr. H. Warnes, who appeared for the defendants, tendered a plea of guilty, and explained to the Bench how lime water is made, with the view of showing that fraud could not possibly be implied, and that the deficiency was due to the lime and water not being stirred. Mr. Samuel Harding, manager of the branch shop, stated he made the lime-water in the usual way, taking care to use sufficient lime to form a saturated solution: he could not account for its being under the standard when analysed

except through insufficient stirring. This particular sample was taken from the mixing-jar. The Bench accepted this explanation and fined each defendant 15s., including costs.

### County Court Cases.

#### CLAIM FOR PRINTING.

At Newtownards Quarter Sessions on January 21, Messrs. Hudson & Son, printers, Birmingham, sued Mr. Thomas B. Gorman, pharmaceutical chemist, Bangor, co. Down, to recover 3l. 15s. for the printing of almanacs. Judge Orr, in the absence of the plaintiffs' traveller, dismissed the action without prejudice.

#### THE USE OF CARBOLISED VASELINE.

At Belfast County Court on January 20 and 21, an action was heard in which a football-player, named Alfred Tedford, sued John Clarke & Co., Ltd., chemists, Belfast, to recover 40l., damages for injuries sustained through the use of carbolised vaseline supplied by the defendants. It was alleged that the carbolised vaseline contained an irritant, which caused the plaintiff serious pain and inconvenience.

Mr. Boas, for plaintiff, said plaintiff used the carbolised vaseline on his feet, which had been chafed by his football-boots, and he sustained burns which could only have been caused by carbolic acid. Defendants said they had analysed what remained in the tube, and, finding the proper proportion of ingredients, denied liability.

Plaintiff was examined, and said he had been at business every day since using the stuff on his chafed foot.

Mr. Kirk, a surgeon, said the burns on plaintiff's feet went down to the deepest layers of the skin. They were burns of the third degree, and most painful. He knew that carbolic acid was liable to separate from vaseline, but he did not think a separation would take place within twenty-four hours.

Dr. John McIlwaine gave similar evidence, adding in cross-examination that carbolised vaseline was recognised in the trade as containing 5 per cent. of carbolic acid. The carbolic acid and the vaseline were, in his opinion, improperly mixed.

For the defence Mr. Joseph Walsh, pharmaceutical chemist, assistant in defendant's shop, said he sold plaintiff a tube of carbolised vaseline, which was subsequently returned with the complaint that the acid had separated from the vaseline and burned his foot. Witness replied that it was impossible for the acid to separate.

Mr. Hugh Byrne, another assistant, also gave evidence.

Dr. W. G. Maguire said that if plaintiff had taken more rest the wounds on his feet would have healed sooner.

Dr. Michael Ankin said he had no doubt the burn was caused by the rubbing-in of the carbolised vaseline.

Mr. Robert F. Blake, assistant to Professor Letts, professor of chemistry in Queen's College, said he had analysed the ointment and found it contained 4.59 per cent. of carbolic acid. There was no foreign substance or irritant in it.

The jury, after a long deliberation, failed to agree to a verdict, and were discharged.

### Bankruptcies and Failures.

*Re HENRY WELLS BUEB*, 30 Grenfell Road, Maidenhead, Patent-medicine Vendor.—The Official Receiver has issued a report to the creditors, which states that the accounts show total receipts 140l. 10s. 1d., and the total costs and charges of administration have amounted to 51l. 5s. 1d. Other payments have included rent at 5l. 7s. 6d., preferential claims 3l. 2s. 8d., and first and final dividend of 1s. 6d. in the pound 80l. 5s., leaving a balance in hand of 9s. 10d. The bankrupt has not applied for his discharge.

*Re CHARLES PAGE DYE*, late of the Central Pharmacy, Great Marlow, Bucks, Chemist and Druggist.—At Aylesbury County Court on January 18 debtor applied for his discharge. Mr. George Mallam, the Official Receiver, said that debtor estimated his ranking liabilities at 4,512l. 8s. 2d., but those actually admitted were 4,751l. 13s. The assets, estimated at 1,379l. 3s. 4d., had only realised 613l. 16s. 6d., this being accounted for by the fact that they were disposed of under a forced sale. The preferential and other debts, put at 41l. 8s. 6d., amounted to 40l. 16s., and there was only 573l. 1s. 3d. left for distribution, instead of 1,339l. 1s. 10d. A



first and final dividend of 1s. in the pound had been paid. The amount of liabilities exceeded the assets by 2,207l. 2s. 3d. a year before the receiving order. During the whole of his trading debtor had been aided by borrowed capital. After he knew he was insolvent debtor contracted debts without reasonable expectation of being able to pay them. His assets were not of sufficient value to pay 10s. in the pound, and he omitted to keep such books as would enable him to tell his financial position. In reply to his solicitor, debtor stated that he would never have purchased the business if Miss Lloyd, his wife's cousin, had not offered him the money to do so. At the time he borrowed the money from her he was led to believe that she would never ask for repayment, as she intended leaving the money to his wife. He admitted that he had borrowed money, but his business was improving year by year, and the gross returns increased from 700l. in the first year to 2,000l. in the last year. He had various misfortunes during the time he was trying to work up his business, the first being his wife's illness, which necessitated nearly two years' medical attendance, besides operations and visits to surgical homes. His daughter had during that period three attacks of rheumatic fever, and he found the South African war made a considerable difference to his trade. When he rebuilt his premises the architect estimated the cost at 400l., but the actual amount was 800l. He kept a cash-book, day-book, ledger, and bought ledger; these he considered quite sufficient to show his financial position. As to his liabilities exceeding his assets by 2,207l. 2s. 3d. a year before the date of the receiving order, he never expected to be called upon to pay Miss Lloyd and Mr. Coleman (from whom he borrowed 1,200l.), and these two more than covered the deficiency. In reply to the Judge it was stated that Miss Lloyd had proved and had been paid a dividend. Debtor went on to say that the reason he did not pay some of his creditors when their accounts became due was because it was the practice in a riverside town like Marlow to pay off in the summer, when there was plenty of trade, debts contracted in the winter. His assets were low because the property was sold under a forced sale on a very miserable day. He also had a fire, by which he lost a considerable amount. In cross-examination by the Official Receiver debtor stated that the capital of 600l. he started with was soon exhausted, and was totally insufficient for the purposes of his business. For the last five or six years he had worked on borrowed capital. The only ground he had for saying he did not think he was insolvent was that he did not look upon Miss Lloyd's and Mr. Coleman's debts as liabilities. The Judge upheld the Official Receiver's remarks in his report. Debtor's conduct during the bankruptcy proceedings, he said, was satisfactory, and therefore he should not greatly increase the suspension, but would grant the discharge, suspended 2½ years from that date.

## Gazette.

### Partnerships Dissolved.

**Hartmann, O., and Hohmann, C.**, Seething Lane, London, E.C., late Manchester, under the style of Hartmann, Hohmann & Co., druggists' sundriesmen.

**Peskett, A. F., and Pace, H. E.**, High Road, Leyton, E., physicians, surgeons, apothecaries, and accoucheurs.

**Whitten, S., and McCormack, J.**, Mortham Street, West Ham, E., physicians and surgeons.

### The Bankruptcy Acts, 1883 and 1890.

#### RECEIVING ORDERS.

**Hart, Francis John Lorimer**, Kirkdale, Sydenham, Kent, medical practitioner.

**Iley, John Joseph**, Syston, Leicestershire, chemist and stationer.

#### ADJUDICATIONS.

**Bushnell, Robert John**, Bron Llan, Llanfairtalhaiarn, Denbighshire, veterinary surgeon.

**Henriques, Ernest St. Clair**, Longridge, Lancashire, physician and surgeon.

## Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," January 4, 1905.)

"PAKOL" and "ZEPA"; for photographic chemicals. By the White Band Chemical Co., 147 Minories, London, E.C. 267,579, 267,580.

"A. I. SMITH," and device of a triangle in a semicircle; for an eczema-cure. By A. I. Smith, 67 Tachbrook Road, Leamington. 266,795.

"CHAMPO"; for a medicinal oil and ointment. By S. Templer, 1 Ashfield Road, Cheadle, Cheshire. 267,657.

"PANCRII"; for a medicine. By H. W. K. Pears, Goldstone Chemical-works, Hove. 268,020.

"ALPHOGEN" ("Alphos" disclaimed); for a medicine. By F. Stearns & Co., 1265 Jefferson Avenue, Detroit, Michigan. 268,074.

"FEBRATONS"; for chemicals. By A. M. Stewart, 3 Raffles Place, Singapore, Straits Settlements, and the Red House, Ballintuim, Blairgowrie, Perthshire. 268,401.

"PARIOZONE"; for a medicinal compound. By the Vian Electrozone Medicine Co., 3 Waterloo Place, North Shields, Northumberland. 268,503.

(From the "Trade-marks Journal," January 11, 1905.)

"SCALOIDS" ("Scale" disclaimed); for photographic chemicals in tablets. By Johnson & Sons, Ltd., 23 Cross Street, London, E.C. 267,650.

"CORN-COB" and "PINEAPPLE" and devices thereof; for chemicals. By Duggan, Neel & McCollm, Ltd., Langbourne Wharf, Millwall, London E. 268,083, 268,688.

"SCRUBONA"; for an insecticide, disinfecting and deodorising soap. By C. Shmith, 35 Mildenhall Road, Clapton, London, N.E. 268,297.

"SILKO" ("Silk" disclaimed); for patent medicines. By H. Cocking, 12 Ordnance Street, Blackburn. 265,234.

"SYLVA"; for patent medicines. By W. A. Travell, 14 Massey Street, Nottingham. 266,317.

Device of olives; for olive-oil emulsion. By the Ehmann Olive Co., Oroville, California, U.S.A. 267,143.

"CARBOGEN"; for chemicals. By F. Detsinyi, 2 Marokanner Gasse, Budapest. 267,299.

Device of a foot on a serpent's coils; for chemicals. By the Vian Electrozone Medicine Co., 3 Waterloo Place, North Shields. 267,509.

"FRUCTOLE" ("Fructo" disclaimed); for chemicals. By Savory & Moore, Ltd., 143 New Bond Street, W. 267,930.

"TACILEM"; for petroleum jelly. By H. Sharp & Son, Park Mills, Armley, Leeds. 267,976.

"IDODERMENE" and "A. MACINTOSH STEWART"; for a medicated preparation. By A. M. Stewart, 3 Raffles Place, Singapore; and the Red House, Ballintuim, Blairgowrie, Perthshire. 268,402.

"GLYPHOCAL"; for chemicals. By Squire & Sons, 413 Oxford Street, W. 268,650.

"HANOWARE" and triangular device; for pottery. By Evans Sons Lescher & Webb, Ltd., 56 Hanover Street, Liverpool. 265,781.

"PLAY UP, NOTTS" and device of a footballer; for essence of coffee and chicory. By Newball & Mason, 90 Beech Avenue, Sherwood Rise, Nottingham. 267,938.

Circular device; for mineral and aerated waters. By Chislehurst Mineral-waters Co., 35 Park Road, Chislehurst, Kent. 266,780.

"PELLUCIS"; for an aerated water. By Camwal, Ltd., 112 Pembroke Street, London, N. 267,826.

"PRESTA"; for mineral and aerated waters. By Apenta Actiengesellschaft, Kelenföld, Budapest. 267,852.

"STAMSOPE"; for candles, soap, detergents, etc., and perfumery. By E. Cook & Co., Ltd., East London Soap-works, Bow, E. 268,551, 268,552.

"LA BELLE HELENE"; for a perfume. By Lecaron & Fils, 6 Avenue de l'Opéra, Paris. 267,399.

"FOAP"; for candles, soap, detergents, etc. By E. Cook & Co., Ltd., East London Soapworks, Bow, E. 268,792.

(From the "Trade-marks Journal," January 18, 1905.)

"THIOXIN"; for dyestuffs and dyeing-chemicals. By K. Oehler, Obermain Strasse 65, Offenbach-on-Main, Germany. 266,914.

"SAROOI" ("Salve" disclaimed); for chemicals. By L. Knowles, 170 Clerkenwell Road, London, E.C. 268,645.

"E. G. FINCH"; for an ointment. By E. G. Finch, 16 Bellefields Road, Brixton, London, S.W. 267,298.

### "RECTIFICATION OF THE REGISTER."

According to the "Trade-marks Journal" of January 25, the trade-mark "Absorbine," registered by Mr. W. F. Young, has now been expunged from the Trade-marks Register in pursuance of an order made by the Court of Appeal on the appeal of Thomas Christy & Co. and Young v. B. C. Tipper & Son (see C. & D., November 19, 1904, p. 821).



## New Companies & Company News.

**POLYSTULPHIN CO., LTD.**—Capital 48*l.*, in 1*l.* shares. Objects: To take over the business of a chemical and soap manufacturer, engineer, machinery-maker, and general merchant carried on by F. L. Bartlett at 3 Kensington Place, Brislington, Bristol; at Keynsham, Somerset, and at Kirkstall Road, Leeds. No initial public issue. The first directors are F. L. Bartlett (chairman), H. C. Gibson (managing director of travelling department), and I. A. Peters (managing director of office departments and works). Registered office, 3 Kensington Place, Brislington, Bristol.

**ELLERY'S, LTD.**—Capital 1,000*l.*, in 1*l.* shares. Objects: To acquire the business of Ellery & Co., trading as the West Ham Co., and to carry on the business of wholesale and retail chemists and druggists, artificial-teeth manufacturers, etc. The first subscribers are: Mrs. K. E. Ellery and E. C. Ellery, 47 Upton Lane, Forest Gate, E., drug-merchant; H. W. Ellery, 3 Gascoyne Road, South Hackney, clerk; S. Falkner, 448 Kingsland Road, N.E., chemist; F. R. Grant, 106 Brownning Road, Manor Park, clerk; F. C. Lanning, 27 Paynesfield Avenue, East Sheen, property valuer; and N. R. Stevens, South View, Slades Hill, West Enfield, surveyor and valuer. No initial public issue. Registered without articles of association.

**HARRY B. WOOD, LTD.**—Capital 20,000*l.*, in 10*l.* shares. Objects: To acquire the business carried on by H. B. Wood at Cathedral Street, Manchester, to adopt an agreement with the said vendor, and to carry on in the United Kingdom or elsewhere the business of chemical-manufacturers, drysalters, foreign-produce dealers, brokers and factors of and dealers in chemical preparations, soap, oil, fat, paint, grease, and similar articles, etc. The first directors are H. B. Wood (permanent governing director), Bury Old Road, Manchester, chemical-merchant; W. E. Hewes, 19 Hartington Road, Chorlton-cum-Hardy, near Manchester, manager; H. B. Wood, jun., Park Croft, Manchester, salesman; and A. E. Peak, 68 Wilbraham Road, Chorlton-cum-Hardy, traveller.

**INTERNATIONAL FERROZONE CO., LTD.**—Capital 10,000*l.*, in 1*l.* shares. Objects: To accept an agreement and assignment, dated January 5, 1905, between A. P. Hope, of Manchester, trading as the "International Ferrozone Co." at Bradford, Manchester, of the one part, and J. E. Barlow (purchaser on behalf of this company) of the other part, and to carry on the business of manufacturers, buyers, and sellers of chemical-products and residuals therefrom, including especially all substances capable of being used in the manufacture of ferrozone, sulphate of alumina, sulphate of iron, and any preparation of alumina or iron, etc. The first subscribers are: A. P. Hope, manufacturing chemist, and Mrs. E. A. Hope, Beth-louise, North Road, Clayton; N. N. Holden, 73 Albert Road, Southport, manufacturing chemist; G. H. Holden, 20 Edge Lane, Chorlton-cum-Hardy, manufacturing chemist; W. Dewhurst, 50 Hulme Hall Lane, Miles Platting, clerk; J. Jackson, Green Mount, Dean Lane, Moston, clerk; and J. E. Howarth, 76 Reather Street, Manchester, clerk. No initial public issue. The first directors are G. H. Holden, N. N. Holden, and W. Dewhurst.

**W. E. SMITH & CO., LTD.**—In Madras for many years the leading chemists have been Messrs. W. E. Smith & Co., Mount Road. Following the example of other leading business concerns in Madras, Messrs. W. E. Smith & Co. have decided to turn their business into a limited-liability company. The capital of the new company will be 10 lakhs of rupees (roughly, 66,660*l.*), divided into 10,000 shares of Rs. 100 each, of which 5,000 will be ordinary shares and 5,000 cumulative 6 per cent. preference. Only the latter will be issued to the public, and 1,500 of them have already been subscribed, leaving 3,500 for further subscription. The prospectus gives the gross receipts of the firm during the past four years at an average of just over 3 lakhs of rupees (say 20,000*l.*) per annum. The auditors' certificate shows that the net profits drawn in cash by the proprietors during the past four years and four months, up to October 31, 1904, amounted to Rs. 3,94,281. The partners' drawings during the year ended June 30, 1904, were Rs. 1,26,958, and during the four months ending October 31, 1904, were Rs. 45,895, or over Rs. 11,000 a month, divided between the two partners. All preference shares will be cumulative as regards dividends and rank preferentially against the assets of the company, such preferential dividends taking priority over any dividends payable on the ordinary shares. The assets have been valued at Rs. 5,75,120. The vendors, Messrs. W. Donald Smith and W. F. Smith, agree under the deed of sale that during the next five years one of them will always be in Madras and act as managing director; and they also agree that during the same period 50 per cent. of the ordinary shares shall remain in their hands, thus securing continuity in the business.

## Personalities.

MR. W. C. YOUNG has been elected analyst to the West Ham Town Council, at a retaining fee of twenty guineas per annum and 7*s.* 6*d.* for each analysis.

MR. C. KEMSEY BOURNE, chemist and druggist, West Bromwich, gave a lecture before the West Bromwich Photographic Society last week on "Photographic Chemicals and Solutions."

MR. FELS, proprietor of Fels-naptha soap, has purchased the Colonial College Estate at Hollesley, Suffolk, and let it at a pepper-corn rent to the Central Committee of the London Unemployed Fund.

MR. JAMES BROMLEY, of the firm of John Bromley & Sons, extractors and refiners, Leeds, who is President of the Leeds Road Club, was presented with a gold medal at the annual dinner of the club, as a token of esteem for the services rendered to the club during the two years he has filled the presidential chair.

In recently referring to the death of Mr. Thomas Silk, of Peterborough, it was mentioned that "he succeeded to the business of the late Mr. Speechly." We are happy to say that Mr. Guy A. Speechly is very much alive, and represents Messrs. Armour & Co., Ltd., in the south of England.

MR. H. GOODSON, chemist, of Bramley, was a passenger in the Midland Scotch express from London that dashed into a wrecked train near Leeds last week. Mr. Goodson is suffering from a contused leg and ankle, sprained muscles, and lacerated mouth. It will be some weeks before he is able to attend to business.

MR. W. J. BARNES, chemist and druggist, 52 Biggin Street, Dover, who has been Ruling Councillor of the Dover Habitation of the Primrose League during the twenty-one years of its existence, has been presented by the Grand Council of the League with a distinctive badge and diploma as an acknowledgment of his long and faithful services.

MR. WILLIAM S. GILL, manager of the perfumery department of W. J. Bush & Co., Ltd., Ash Grove, Hackney, E., leaves for a business-trip in the United States by the *Oceanic* on February 1. Mr. Gill will be away for about ten weeks, including Canada in his tour. Letters addressed to him at 5 Jones Lane, New York City, will be forwarded.

MR. F. W. CATON (son of Mr. E. C. Caton, chemist, 6 Waterloo Street, Hove, Brighton), who is a scholar of Merton College, Oxford, has been elected to an Exhibition of 50*l.* per annum, in the gift of the Worshipful Company of Grocers. Mr. Caton is the second chemist's son at Merton, the other being Mr. Harry Thomson, son of Mr. John Thomson, chemist, Lochee, Dundee.

MR. W. LLEWELLYN, of Newport, is probably better known to the public as a footballer than as a chemist. He is a prominent member of the Newport Rugby Club; but he is shortly leaving Newport to start in business as a chemist at Llwynypia. Before then, however, he purposes attending some dental lectures in London, and during that time he will play for the London Welsh footballers.

MR. H. ALCOCK, pharmacist, of Bath, is to be congratulated on the success of his son, who has gained three exhibitions during the past twelve months. In July last he was awarded the Dyke Exhibition, value 60*l.* per annum; in December he gained an Entrance Exhibition at Magdalen College, Oxford, value 50*l.* per annum; and this month the School has awarded him the Edmund White Exhibition, valued at 40*l.* per annum. The exhibitions are tenable for four years, and he has now started his Oxford career.

MRS. BREMRIDGE, of Sidmouth, celebrated her 104th birthday on January 20. The old lady retains all her faculties, and, considering her age, is in fair health. We understand Mrs. Bremridge is a relative of the Secretary of the Pharmaceutical Society. She is the widow of the late Mr. Richard Bremridge, who twice represented the old borough of Barnstaple in Parliament. She is the second daughter of the late Mr. John Toller, Barnstaple, solicitor, and was married on January 26, 1824. She and her husband left Barnstaple in 1865, and resided for some time in Somersetshire, celebrating their golden wedding at Taunton. In



1875 they returned to Devonshire, and Mr. Bremridge died at Exmouth in 1878. In 1881 Mrs. Bremridge went to reside at her present home. Last year she was honoured by a gift from Queen Alexandra.

LAST week a special circular announcing the jubilee of their Market Street pharmacy was issued by Messrs. William Blain & Sons, pharmaceutical chemists, Bradford. Mr. William Blain, pharmaceutical chemist, the founder of the firm, is seventy-six years of age, and commenced business in Market Street in 1855. He was born in Bradford, and was educated at Bank Street day school. He was apprenticed to Mr. John Edmondson, Fishergate, Preston, and afterwards gained experience in pharmacy with Mr. Thomas Millais, of Guernsey, a cousin of Sir John Millais, the artist. Mr. Blain was sent to Guernsey after having, when quite a young man, a paralytic seizure depriving him of the power of his right side and of speech. It was predicted that he would never recover, but a few months in the Channel Islands cured him, and he returned eventually to Bradford, and commenced business on his own account. Mr. Blain has had a very successful business career; but he found time for much public work. He was fifteen years a member of the Town Council and seventeen years a Poor-law Guardian—twice during that period being Chairman of the Board. He was an Alderman of the town for twelve years. He is one of the oldest Freemasons living, having joined the Craft in 1850. He has passed through all the chairs, and has belonged to the Arch, Mark, and Knight Templar organisations; of the last he was Preceptor. Mr. Blain, whose reminiscences of old Bradford, the Chartist riots, and historical events of a past generation are many and interesting, is helped in the business by his sons, Mr. Alfred Lucas Blain, pharmaceutical chemist, and Mr. William Rushton Blain, pharmaceutical chemist.

Mr. J. W. EVANS, of Lampeter, whose death we reported last week, began business in that town at an early age. His first shop was where the Cambrian Shoe-factory now stands, but after some time he removed to more commodious premises where he continued to carry on a flourishing business for nearly half a century. One of his earliest apprentices was Mr. Roderick Evans, chemist and druggist, Lampeter. Mr. Evans became associated with the public life of the town in 1874, and had his seat on the Local Board until its extinction in 1884, when the Borough received its charter of incorporation. At the first meeting of the Town Council Mr. Evans was elected Alderman. On November 9, 1892, he was elected Mayor. In other offices also he did his fellow-

townsmen service. Mr. Evans was a staunch Calvinistic Methodist, and had held the office of deacon at Shiloh Chapel for upwards of thirty-eight years. Mrs. Evans predeceased him two years ago, and his only surviving close relatives are a brother and sister.

A CORRESPONDENT in last week's "Nature" pays a tribute to the memory of Dr. Thomas Woods, whose death occurred on January 5 in Birr (or Parsonstown). He says:

Dr. Woods was born in February, 1815, and graduated as doctor of medicine in Glasgow in 1838. He spent all his long life as a medical practitioner and as medical officer of the union and dispensary in Birr. So it is, perhaps, not to be wondered at that his scientific work belonged largely to a former generation. He was a chemist, and as such took part in the early development of photography, originating in the 'forties a new wet-plate process, the "catalysotype," a detailed description of which may be found in Hunt's "History of Photography." In 1852 and 1853 he published in the "Philosophical Magazine" some original observations on the heat developed by chemical combination, and

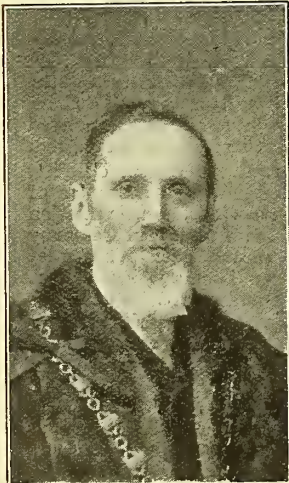
defended with considerable success his claim of priority against Andrews and Joule. He was a man of remarkable ability and astoundingly general scientific interest, and it is much to be regretted that circumstances kept him in a small country town, and that his professional duties prevented him from adding further to scientific knowledge. He continued mentally and bodily fresh to the very end, ever eager to hear of the latest scientific discoveries, and Birr feels distinctly the poorer for his loss.

WE were unable last week to get a portrait of the late Mr. John A. Wink in time to include with our obituary notice. The one now reproduced is from a family group, and shows Mr. Wink as he was a little over a year ago, when he was a hale and hearty man. His death is much regretted among his commercial friends, and those who were most closely associated with him have much to say about his warm-hearted friendship. "One of the best of Scots" is what a very old friend said of him. We inadvertently said last week that Mr. Wink's uncle was Town Clerk of Edinburgh; Mr. Adam was the City Chamberlain. Mr. Wink left two daughters.

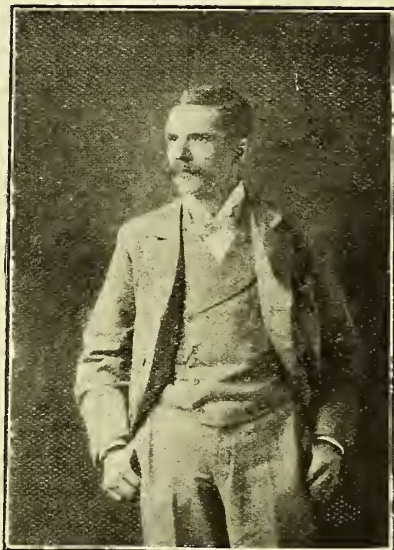


THE LATE MR. J. A. WINK.

It will be noted from our Company News that the business of W. E. Smith & Co., Madras, has been "converted," the two brothers W. Donald and W. Fraser Smith being



THE LATE MR. J. W. EVANS.



MR. W. FRASER SMITH.

managing directors. We gave a portrait of Mr. W. D. Smith in our issue of June 11, 1904, and now give that of his younger brother. Both are sons of the founder of the business.

THE ART OF CANVASSING as practised in Russia is exemplified in the subjoined letter recently received from St. Petersburg by one of our subscribers: "We send You a number of our weekly journal — 5800 subscribers (guaranteed) and You find in our paper indicated Your Laboratory. We offer You to send us Your publication of Radium, because the Russian physician ask frequently addresses of Radium-Laboratory, like in this case. The price for the publications in our paper You can see in our prospectus who is adjoined withal. Expecting Your kindly answer we rest respectfully," etc.



## C. & D. Diary Competitions.

### Postcard A.

APPARENTLY "age cannot wither nor custom stale the infinite variety" of suggestions and opinions yearly recorded by our subscribers regarding the advertisements in the *Diary*. The numbers that compete tend to increase rather than otherwise, and the keen interest taken in the Competition is an assurance that the advertisement-pages in our invaluable annual are eagerly, thoroughly, and critically scanned. This year the questions we asked were:

Name the advertiser whose announcement you think the best.

Whose advertisement shows the highest artistic conception and execution?

What advertisement will be most useful to you throughout the year?

Which advertisement is calculated to sell most goods?

Name the novelty advertised which should be most popular.

Whose goods would you like to see advertised in the *C. & D. Diary*, which are not in this one?

The present adjudication deals entirely with the replies of our home subscribers, and to the first question first place has been accorded to the Vinolia Co., Ltd., for their series of pp. 241 to 272. Second place is given to Messrs. Allen & Hanburys, Ltd. (pp. 192 to 200), and third to Daisy, Ltd. (pp. 394 to 397). Then come Christy Strong (p. 61), Stevenson & Howell, Ltd. (pp. 8 and 9), Goodall, Backhouse & Co. (pp. 176 and 177), Maw, Son, & Sons (pp. 10 to 13), Fletcher, Fletcher & Co., Ltd. (pp. 23 and 24 and p. 286), Cadbury Brothers, Ltd. (p. 179), Battle, Son & Maltby (p. 66), W. Cooper & Nephews (p. 49), Arthur H. Cox & Co., Ltd. (pp. 41 and 42), Raimes & Co., Ltd., Stockton (p. 85), and many others.

### THE HIGHEST ARTISTIC CONCEPTION

is shown, according to our competitors, in the pages of Fletcher, Fletcher & Co. (23 and 24). Next comes Allen & Hanburys, Ltd.; then Stevenson & Howell, Ltd.; then Cadbury Brothers, Ltd., Vinolia Co., Ltd., Goodall, Backhouse & Co., J. H. Haywood (p. 582), G. B. Kent & Sons, Ltd. (pp. 102 to 105), A. & M. Zimmermann (Schering's Pyro, p. 136), and others.

### THE MOST USEFUL ADVERTISEMENT

is given easily to the Vinolia Co., Ltd.; Allen & Hanburys, Ltd., are placed second; and the third is the page (370) setting forth the products of the Alliance Drug & Chemical Co., Ltd. Next in order of merit come the Standard Tablet Co. (p. 321), Ayrton, Saunders & Kemp, Ltd. (p. 372), Evans Sons Lescher & Webb, Ltd. (pp. 32, 130, 305, 363, and 393), Jules Denoual & Co. (pp. 186 to 189), Daisy, Ltd., Robinson & Sons, Ltd. (pp. 161 to 163), Maw, Son & Sons, Breffits, Ltd. (pp. 576 and 577), THE CHEMIST AND DRUGGIST (p. 614), Cresswell Brothers & Schmitz, Ltd. (pp. 95 to 98), etc.

The advertisement our subscribers have

### CALCULATED TO SELL MOST GOODS

is that of the Vinolia Co., Ltd., with Daisy, Ltd., as a hot second, and Allen & Hanburys, Ltd., following close. Then come Beecham's (p. 385), the Alliance Drug Co., and Arthur H. Cox & Co., Ltd., etc.

### THE MOST POPULAR NOVELTY

advertised is likely to be, according to the voting, Dr. Horsey's Oriental Fibre Tooth-brush (p. 99). There are likewise many backers of Daisy Powders, Sparklets (p. 479), Papier Poudré (p. 126), Vinolia preparations, "Liniskie" (p. 75), Milo Food (p. 174), Plasmon (p. 173), Sulphume (p. 43), etc.

### THE GOODS THAT OUGHT TO BE ADVERTISED

in the *Diary*, and that our readers would like to see there, are Elliman's preparations, Burroughs Wellcome & Co.'s products, Bovril, "My Own," Kodak photographic, Bile Beans, May, Roberts & Co.'s sundries, Odol preparations, Scott's Emulsion, Gibbs's soaps, Owbridge's Lung Tonic, and Grossmith's perfumery.

### THE AWARDS.

None of the competitors has guessed all six questions correctly, and only three have given five correct replies. They are:

Mr. G. A. Hebblethwaite, 69 Church Street, Drypool, Hull.

Mr. M. G. Parker, 31 Market Place, Norwich.

Mr. A. Norweb, 26 Fishergate, Nottingham.

To these gentlemen we have awarded one guinea each.

Eleven got four replies right, and to each of the following we shall send 5s.:

Mr. J. W. Sampson, Cleveland Pharmacy, Bath.

Mr. C. G. Breadner, 1 Elizabeth Street, Cheetham, Manchester.

Mr. J. Ford, 3 Thoresby Street, Sneinton, Nottingham.

Mr. T. W. Hazelby, chemist, Hungerford.

Mr. J. A. Whitla, Monasterevan, co. Kildare.

Mr. W. T. Symes, c/o Evans, Gadd & Co., Ltd., Exeter.

Mr. A. W. Campsall, 92 Broad Street, Parkgate, Rotherham.

Mr. J. G. Kirby, 277 Brighton Road, Croydon.

Mr. W. Walwin, Monkleyton, Alexandra Road, Gloucester.

Mr. C. E. Bell, Stapleford, Notts.

Mr. Daniel Davison, Pier Pharmacy, Cromer.

### Postcard B.

WE gave recently a sample of the contents of the "B" postcards sent in for the *Chemists' and Druggists' Diary* Competition. The cards sent in are more numerous than ever, and we can only afford space for a representative collection. It will hardly be wondered at that many of our subscribers have hit upon similar phrases in which to praise the *Diary*—for instance, we have numerous examples of the following:

A I.

Perfect.

The best.

Splendid.

Unsurpassed.

Has no equal.

Indispensable.

A joy for ever.

Ne Plus Ultra.

A friend in need.

Multum in Parvo.

It holds first place.

Exceedingly useful.

A boon to chemists.

A wonderful Diary.

The chemist's Bible.

A perfect gold-mine.

Trustworthy and useful.

Worth its weight in gold.

Full of useful information.

Up to date in every respect.

As perfect as a Diary can be.

The most useful of the series.

Would not be happy without it.

The chemist's "Enquire Within."

An invaluable storehouse of important facts.

A marvellous collection of valuable information.

The following are some of the other expressions of opinion we have received:

You go one better every year.—J. H. PEMBLETON, Mansfield.

The *C. & D. Diary* is the chemist's up-to-date sailing chart.

—A. M., Cork.

Your *Diary* just helps to make life possible.—ERNEST L. HINDE, Stoke Ferry.

The best *Diary* yet published, or, putting it mildly, "opt."—A ENGLAND, Leeds.

Your valued *Diary, C. & D.*,

My wife and I are pleased to see,

And trust that in nineteen-nought-five

'Twill help to make our business thrive.

THOMAS STEVENSON, Bolton.

The *Diary* of THE CHEMIST AND DRUGGIST ought to be in every trade journal's office as an example to the staff as to what a *Diary* should be like. We mustn't stand still, but he will be a clever man who can improve upon it at the present time.—JOHN HY. FLETCHER, Lower Clapton Road, N.E.

We have more of these cards in type, and will award the prizes when the rest are printed.



## Golden Seal.

THE cultivation of medicinal plants in the United States is a subject which continues to engage the attention of the U.S. Department of Agriculture; and in view of the increasing scarcity of certain indigenous drugs, attention may be called to a timely pamphlet on "golden seal" (*Hydrastis canadensis*), which has been issued by the Bureau of Plant-industry. The paper, which is illustrated, was undertaken to meet the demand for information about the plant, its identification and geographical distribution, the conditions under which it grows, methods of collecting and preparing the rhizomes, relations of supply and demand, and the possibilities of its cultivation. All this information, and more, is set out in the pamphlet, that relating to its history being taken from the text-books. The greatest golden-seal producing States have been Ohio, Indiana, Kentucky, and West Virginia. Formerly the plant was so abundant in Ohio that it was considered a pest, but, owing to a steadily increasing shortage, to-day it is worth \$1.50 per lb. in the wholesale market, and is eagerly hunted for by drug-plant collectors. This diminution of supply is of course due to the advance of civilisation and increase in population, along with which came a growing demand for medicinal plants and a corresponding decrease in the sources of supply. In Ohio, especially, it gradually disappeared with the advance of the early settlers, as it will not thrive on cultivated land. The diggers also did their share towards exterminating this useful plant, which they collected regardless of the seasons. Prior to 1900 no one had ever attempted to cultivate golden seal for the market, but the scarcity has now led several growers in different parts of the country to undertake the cultivation on a commercial scale. The U.S. Department of Agriculture has carried on experiments at Washington, D.C., since the spring of 1899, and the results so far obtained, "while not as complete in some respects as would be desirable, seem to justify the conclusion that golden seal can be successfully cultivated." A full description of the best methods of cultivation is given. Golden seal grows easily in rich, loose garden soil. The plants are put in rows six inches apart, with a foot between the rows. It takes about three years from planting before harvesting, and after that an annual supply of roots should be had. In two seasons the original plants should increase four times by dividing the rhizomes, which can be cut up in the fall. The yield of roots from the small plot grown by the Department was at the rate of 5,120 lbs. per acre, which when dried yielded about 1,500 lbs. of marketable roots.

In times past the price of golden seal has fluctuated widely, because of the alternate over-supply and scarcity, manipulation of the market, lack of demand, and other influences. High prices will cause the diggers to gather the root in abundance, thus overstocking the market, while the next season results in lower prices, at which diggers refuse to collect the root, thus again causing a shortage in the supply. The arrival of spring-dug root has a weakening effect on the market, although the fall-dug root is always preferred. For the past few years, however, high prices have been steadily maintained, and this is due, as already pointed out, to the inadequate supply and the constantly increasing demand. It is impossible to ascertain the exact annual consumption of golden seal, but estimates furnished by dealers place these figures at from 200,000 lbs. to 300,000 lbs., about one-tenth of which is probably exported. It must not be forgotten, however, that if the plant was successfully cultivated on a large scale the point of over-production would easily be reached.

Although golden seal is only one of the minor drugs on the London market, the position of the drug created a considerable amount of interest here last year on account of the above-mentioned causes, and even at the present time it would be difficult to find five hundredweight in first-hands on offer. Its value has more than doubled during the past twelve months, and the demand has been correspondingly light. The makers of hydrastine and hydrastinine have advanced their prices several times.

## Deaths.

DODD.—At Waghorn Road, Upton Park, on January 11, Mr. William Dodd, chemist and druggist, aged sixty.

MACIVER.—At The Cottage, Castle Street, Dingwall, on January 17, Henrietta Andrews, wife of Mr. Alexander Maciver, chemist and druggist.

MATHEW.—At Cape Town, on January 22, Mrs. John A. Mathew, the wife of the senior partner of the firm of Heynes, Mathew & Co., Cape Town, Bloemfontein, &c. Mrs. Mathew had been ailing for a long time past, and although the end has been not unexpected much sympathy will go out to the bereaved family. Mrs. Mathew was a lady of singularly beautiful character and kindness of heart.

MILLER.—At Lawrence Lodge, Reading, on January 14, Mr. Robert P. Miller, pharmaceutical chemist, aged eighty-eight.

MITCHELL.—At 53 Lothian Street, Edinburgh, on January 21, Mr. Robert Mitchell, of Waters & Mitchell, proprietors and manufacturers of "Scott's Vegetable Pills," an old-established and popular proprietary in Scotland.

MORRIS.—At Llanon, Cardiganshire, on January 4, Mr. Lewis Morris, chemist and druggist, aged sixty-three.

## Business Changes.

Properly authenticated business notices (not being advertisements) are inserted in this section free of charge if promptly communicated to the Editor

MR. W. H. CLEMENT, chemist and druggist, formerly of Lincoln, is now in business at Radstock, Somerset.

MR. C. D. PITT, chemist and druggist, has purchased Mr. Davis's business at 101 Church Street, Brighton.

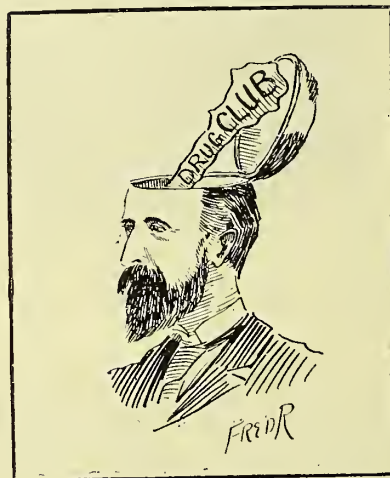
MR. REES, chemist, of the London Drug Co., Bath, is fitting up a handsome pharmacy at High Street, Redhill, Surrey.

MR. G. W. KENNEY, chemist and druggist, has purchased Mr. Fuge's business at 108 Canterbury Street, New Brompton, Kent.

LEADBITTER & SON, dispensing chemists, of Sunderland, have removed the surgical truss-fitting, elastic stocking, and knee-cap branch of their business to premises at the corner of Blandford Street.

MR. CHARLES HENRY WELTON, chemist and druggist, Coventry (son of Mr. Henry Welton, chemist, Bishop Street, Coventry), has bought the old-established business of Mr. Richard Hiscock, chemist, at 17 Broadgate, which he intends removing in a few weeks to new premises situated at 13 High Street in the same city.

## On the Brain.



(Mr. Arnold Baiss, President of the Drug Club.)



## Some Indian Statistics.

A BLUE-BOOK on the trade of British India with foreign countries for the official year ending March 31, 1904, has recently been issued, which is worth the perusal of those interested in our great dependency. The value of the sea-borne imports into British India (excluding Government stores, but including gold and silver) was Rs. 113,96,76,632, against Rs. 104,04,36,358 the year before. The exports amounted in value to Rs. 158,93,94,269, against Rs. 137,62,53,756. The whole trade of the year—that is, the total of the imports and exports of both merchandise and treasure—is greater than that of the preceding year by 3,123.8 lakhs (20,825,400*l.*), equal to 13 per cent. The contribution of the imports of merchandise to this remarkable result is disproportionately small, for their value is but 603 lakhs greater than in the preceding year, and only 330 lakhs more than in 1901-2. The value of the merchandise exported, however, has increased by 2,414 lakhs since 1902-3 and by 2,849 lakhs since 1901-2. This disparity between the imports and exports of merchandise is largely reduced by the phenomenal imports of treasure, but the net excess of exports still remains without a parallel. The extraordinary demand for Indian cotton and the increased price account for an advance in exports of nearly 962 lakhs (6,412,600*l.*). Apart from this, however, the imports of all other commodities furnish striking evidence of industrial development and general prosperity; for with only one or two exceptions, all the principal articles were imported to a greater extent than in any previous year. Progress in exports was scarcely less uniform than of the imports. The favourable character of the seasons was apparent in the phenomenal trade in grain, rice, and wheat, oil-seeds, cocoanuts, jute, opium, tea, and indigo. Values, however, played an important part, for while the prices of cotton, opium, and lac were extraordinarily inflated, oil-seeds were very much reduced and the small margin of profit on coffee and indigo was still further restricted.

The value of imported chemicals and drugs was fifty-nine and sixty-eight lakhs respectively, there being an increase, compared with 1902-3, of nearly 7 per cent. in each case. Chemicals for paper-making show a drop of 1½ lakh, or 18.4 per cent., an indication of the depression of the Indian paper-making industry through the competition of cheap foreign paper. Among the unspecified chemicals is carbide of calcium, for which there is an increasing demand. The imports of aniline and alizarine dyes were unusually heavy, and surpassed those of any previous year. The quantity imported was 12,182,600 lbs., or one-third as much again as in 1902-3, but owing to a considerable fall in the average price of aniline dyes the value, Rs. 82,67,010, was only 26 per cent. higher. The prices of the cheaper alizarine dyes show a slight decline, and with an increase of nearly 39 per cent. the quantity imported exceeded that of aniline dyes by 1,216,000 lbs. The bulk of it goes to Bombay from Germany.

The value of the exports of "chemicals, drugs, medicines, narcotics, and dyeing and tanning materials" is returned at Rs. 13,00,71,625. Saltpetre is the only chemical of which a considerable quantity is exported, and for many years the business has been unprogressive. In 1903-4, 392,114 cwt. was exported, against 410,622 cwt. in 1902-3 and 354,401 cwt. in 1901-2. The exports of opium increased last year by 9 per cent. in quantity and 30.6 per cent. in value, which is the highest attained in the last twenty-five years. A total of 73,637 chests was exported, having a value of Rs. 10,47,01,638. The year's average price was Rs. 1,460, being greater than that of any other year since 1861-62. The exports to China direct increased by 5,032 chests, to Cochin China by 950 chests, and, owing to a shipment of 944 chests to Siam, by 712 chests to "other countries"; but the exports to the Straits were smaller by 588 chests. Turmeric exports decreased considerably, being 68,234 cwt., against 126,076 cwt. in 1902-3 and 82,436 cwt. in 1901-2. The value of the trade in "oils," which is 20 per cent. larger than in 1902-3, is by far the highest attained. This result is due to the large exports of coconut oil from Madras. Of castor-oil, which is next in importance, the exports decreased and prices continued to fall, the value being

20.8 lakhs, compared with 24.7 lakhs in 1902-3. Among the articles partly manufactured, lac to the value of Rs. 2,67,99,706 was exported, the value being greater by 48 per cent., but the quantity was slightly smaller than in 1902-3, and prices were the highest obtained for twenty-nine years.

## The General Board of Opticians.

AS we indicated last week, the General Board of Opticians was formed on January 19 at the Holborn Restaurant. Some fifty-eight delegates were present, representing the Spectacle-makers' Company, the British Optical Association, the National Association of Goldsmiths, the Society of Chemist Opticians, the Institute of Opticians, the Manchester Optical Society, the Scottish Optical Society, the Glasgow Optical Society, and the West Riding Optical Society. The following elections of officers took place: President, Col. T. Davies Sewell; Chairman, Mr. S. Cowan (Manchester); Deputy-Chairman, Mr. Walter Bull; Hon. Secretaries, Mr. Lionel Laurance and Mr. J. H. Sutcliffe; Hon. Treasurer, Mr. T. Field. A long agenda was placed before the meeting, but so little progress was made that the meeting had to be adjourned till Friday. The principal business was the election of an Executive Committee "to consider and resolve as to the expediency of applying to Parliament to pass an Act for the purpose of defining and regulating the practice of sight-testing, and to consider the ways and means to be adopted for supplying funds for and otherwise promoting the passing of an Act or Acts regulating the practice of sight-testing and carrying out the resolutions of the General Board." The Executive Committee is given full powers of acting and dealing with the funds of the Board, but in certain contingencies an appeal may be made to the General Board. Divisional sub-committees are to be appointed by the Executive, and a good deal of detail work was left for the Executive to settle. The following is the constitution of the Executive Committee: *Chairman*, Mr. J. H. Casartelli; *Deputy-Chairman*, Mr. A. E. Grey; *Ex-officio members*, Messrs. Walter Bull, S. Cowan, T. Field, Lionel Laurance, and J. H. Sutcliffe; *Ordinary members*, Messrs. J. Allan, F. Bateman, A. W. Boatman, C. J. G. Bunker,\* A. Cowan, J. H. Cuff,\* H. W. Dunscombe, A. D. R. Jameson, J. C. Kidd,\* J. Overstall, A. W. Oxbrow, and A. Steward. The chemists are indicated by asterisks. The Optical Society was not represented at the inaugural meetings of the Board, as the Society considered it was to be insufficiently represented. Two delegates of the Optical Society were, however, co-opted by the Board.

## New Books.

These notes do not necessarily exclude subsequent reviews of the works. Any of these books can be supplied, at the published price, to readers of this journal on application (with remittance) to the Publisher of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Bailey, G. H., and Briggs, W. *New Matriculation Chemistry*. Specially written for London University Matriculation Syllabus. 2nd edit. 7×4½. Pp. 536. 5s. 6d. (Clive.)

Bailey, G. H., and Briggs, W. *Tutorial Chemistry. Part 1, Metals. Part 2, Non-metals*. 2nd edit. 7×4½. Pp. 940. 3s. 6d. each. (Clive.)

Brownell, L. W. *Photography for the Sportsman Naturalist*. Cr. 8vo. 8s. 6d. net. (Macmillan.)

Lambkin, F. J. *Treatment of Syphilis*. Cr. 8vo. 3s. net. (Baillière.)

Mackenzie, J. A. S. *Some Methods of Hypodermic Medication in Treatment of Inoperable Cancer*. 8vo. Swd. 1s. net. (Baillière.)

Nernst, W. *Theoretical Chemistry. From Standpoint of Avogadro's Rule and Thermo-dynamics*. 8½×5½. Pp. 796. 15s. net. (Macmillan.)

Prost, E. *Manual of Chemical Analysis as Applied to the Assay of Fuels, Ores, Metals, Alloys, Salts, and other Mineral Products*. Trans. by J. C. Smith, B.Sc. 9½×6. Pp. 300. 12s. 6d. net. (MacLaren & Sons, 37-38 Shoe Lane, E.C.)

Thudichum, G. *Simple Methods of Testing Sewage Effluents*. For works-managers and Surveyors. 6½×4½. Pp. 60. 2s. 6d. net. (Sanitary Pub. Co.)



## Correspondence

TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

The B.P. as a Standard.

SIR,—Mr. J. C. Umney's letter in your last issue is very much to the purpose, and I enjoyed reading it. I have on former occasions advocated the referring of all proposed prosecutions under the Food and Drugs Acts to a central competent authority, which should determine whether there existed a sufficient *prima-facie* case. I am more than ever convinced that nothing less than this will put a stop to the very vexatious, and sometimes foolish, prosecutions that frequently occur. Various attempts have been made to exalt the British Pharmacopœia into a standard, in a sense which its compilers did not contemplate; but it has been reserved for the Government Laboratory to discover that the B.P. must be accepted even when it is wrong. That is to say, you must add something to your alkaloid to give it the official melting-point, or put something in your oil to make it give the official colour-reactions. This kind of thing is the *reductio ad absurdum* of the B.P. as a standard. Yours truly,  
Edinburgh, January 23. D. B. DOTT.

"Pharmacy of the Charter."

*"We are but a feeble folk at the best, and a strong pull all together is essential if anything is to be achieved in a world so indifferent, if not hostile, as the one which surrounds us."*—"Xrayser," January 21.

SIR,—The words are so singularly appropriate that I am sure "Xrayser" will pardon my using them as a preface. Apparently the tardiness with which criticisms on the new Clause 7 have been coming in is due to a feeling that a fickle flame should not be tampered with. It should, however, be borne in mind that those of us who emphatically supported the original clause have necessarily very different impressions with regard to its successor. In addition, we think it possible to carry the plan of legislating for "what we can get" instead of "what we are entitled to" a little too far.

Qualified men who are inclined to accept first one thing, then another, should recognise the danger attached to a retrograde policy, and make up their minds as to the length they are prepared to go. I say this advisedly, without the slightest wish to in any way throw cold water on a clause which is all right so far as it goes. When the subject was first attacked, we used to hear a great deal about "fighting for our rights," "having a jolly good try," etc. Although I much prefer the sentiment expressed so eloquently by "Xrayser," I cannot help the thought that a little of the former influence, judiciously curbed, would not be amiss, because we are in danger of bartering our position in favour of legalising the very grievance we seek to remedy. What we really need is a united recognition of the principle included in what is now termed "Pharmacy of the Charter." We are losing sight of this principle altogether, when, as an actual fact, we never needed it more.

If we take the charter as a guide, we shall not only arrive at a solution of the difficulty, but we shall also see that we have no right to perpetuate the lack of principle involved in permitting unqualified companies to sap the foundations of that Act. We had hoped to practically prevent this by compelling unqualified directors to give place to qualified men, but have been confronted with difficulties in connection with the larger stores, such as the Civil Service, Army and Navy, etc., who treat pharmacy as a department. Hence the new clause. We cannot very well compel these institutions to appoint directors who are chemists to superintend the sale of frying-pans and the removal of household furniture, any more than we can overcome the insurmountable difficulties under the category of vested interests, having permitted their existence for a very long time.

Those who favour the new clause state that it will prevent the formation of "one man," or "bogus" companies, but this remains to be proved. If control is simply to be departmental, what is to prevent anyone sufficiently capitalised from "running" a pharmacy, provided a company is formed and a qualified director engaged? Any enterprising draper or grocer could "go into the line," as he would probably express it.

The question now is, Are we to say "good-bye" for ever to the principle of the existing Act? We have gone astray through force of unanticipated circumstances, but there is not the slightest reason why we should not combine to remain "Pharmacists of the Charter." To do this we might make the conditions of the new Clause 7 obligatory as terms of registration for existing companies (omitting, of course, "bogus" companies), and preventing the formation of new ones, unless under fully qualified conditions in accordance with the principle of the present Act. A clause to this effect might accompany the latest venture. And why not? There is every reason to suppose it would have justice and common-sense on its side. No one could oppose it on account of vested interests. The safety of the public would be more thoroughly guarded as time went on. The probable contention that it would hamper trade would not hold water, because it could be shown that the Pharmacy Act was not framed to harmonise with the instincts of the "General Provider." Place existing companies in the same position as those already in business when the present Act was put in force, and the right cue will be at hand.—Yours faithfully,

WALTER H. KEEN

Penzance, January 24.

Bombay Mace.

SIR,—In reply to Mr. Pritchard I can only refer him to Hilger's statement (THE CHEMIST AND DRUGGIST, October 14, 1893) that the colouring-matter associated with the fat in Bombay mace partakes of the nature of a quinone. If this is the case, it is not surprising that this substance yields a dark colour with alkalis. I shall be pleased to learn that Mr. Pritchard has succeeded in confirming or disproving this view of the matter.

Yours faithfully,

Manchester, January 21.

WILLIAM KIRKBY.

The Bradford Case.

SIR,—Kindly allow me to protest against the misleading statements contained in your summary report of the Bradford veratrine case. You say that "the Bradford Magistrate holds that preparations of veratrine sold as vermin-killers are not in Part 2 of the Poisons Schedule." That, it appears to me, is precisely what Mr. Skidmore refused either to deny or to affirm. The superficial plausibility of your statement depends on the assumption that, if a given substance is in one part of the schedule it cannot be in the other. But a few minutes' examination of the schedule itself suffices to demonstrate the purely assumptive nature of this assertion. For example, in the second part of the schedule I find "Nux vomica and its preparations"; while, in the first part, strychnine is one of the poisons specified. But strychnine is a preparation of nux vomica, therefore it is in Parts 1 and 2. The question that Mr. Skidmore answered quite unmistakably in the affirmative was: Are veratrine and its preparations in the first part of the Poisons Schedule? You go on further to say that Mr. Skidmore convicted a chemist for treating as in Part 2 of the Poisons Schedule something which he (Mr. Skidmore) declared not to be in such part. Sir, if this were true, it would be a very serious matter indeed, as it would be quite possible for Mr. Leggett or any ill-disposed person to get convictions against nine out of every ten chemists for labelling, e.g., sulphate of zinc with the word "Poison" and the name and address of the seller. Fortunately it is absolutely untrue; Mr. Dutton being convicted not because he took certain precautions—necessary for poisons in Part 2—but because he omitted to take certain further precautions necessary for poisons in Part 2. May I ask your readers to turn up *C. & D. Diary*, 1904, p. 274, and read note on vermin-killers in Part 1 of the Poisons Schedule, and also the note on Preparations of Poisons, on p. 276? I have spent some little time trying to find some meaning in your assertion that "meanwhile the law stands where it did," but must



say I have found it a much stiffer problem than any conundrum I have met with recently. Yours truly,  
Bolton, January 22. THOMAS STEVENSON.

[Our correspondent should try to master the art of writing pleasantly. There is really no occasion for his vehemence. The summary note about which he is so indignant was as in the first column subjoined, and in the second we put the same paragraph altered to accord with Mr. Stevenson's criticism:

"The Bradford Magistrate holds that preparations of veratrine sold as vermin-killers are not in Part 2 of the Poisons Schedule, and has convicted a chemist for treating one as such. The decision is to be appealed against (p. 82), and meanwhile the law stands where it did. See p. 87.

The Bradford magistrate holds that preparations of veratrine sold as vermin-killers are in Part 1 of the Poisons Schedule, and has convicted a chemist for treating one as in Part 2, and not as in Part 1. The decision is to be appealed against (p. 82), and meanwhile the law stands where it did. See p. 87.

There is no ulterior meaning in the last phrase of the paragraph. In 1869 the Pharmaceutical and Privy Councils placed in the Poisons Schedule vermin-killers containing any poison in the schedule, and did not put them in Part 1. The prosecution in the Bradford case, ignoring this, took proceedings against chemists who sold a vermin-killer for selling veratrine, and the Magistrate convicted, setting aside the defence that the article sold was a vermin-killer, therefore, in Part 2. The legal difference being the subject of an appeal, "the law stands where it did" when the resolution gazetted on December 21, 1869, came into force, and when the recent prosecution was instituted. The vermin-killer point is the clear issue which will go before the High Court judges. Our correspondent should read the article in our issue of June 22, 1901, p. 992, in which the history of this matter was first gone into. Before that the Pharmaceutical Society put vermin-killers in each part of the schedule, but now it prints the words of the 1869 resolution under the two columns headed Part 1 and Part 2, and our *Diary* lists are "as printed by the Pharmaceutical Societies."—EDITOR.]

#### Shop-hours Act.

SIR,—Surprise has been expressed in some quarters that the Early-closing Association took no part in the meeting at Cannon Street Hotel; in others we are wrongly supposed to have convened it. The Association, through the effort of its President in the House of Lords, its Chairman in the House of Commons, and workers throughout the kingdom, won the Act, and pressed for a stronger measure. The Act became law in August. In September the Board of Management were hard at work canvassing the most favourable areas for the statutory two-thirds majorities of traders. Unfortunately, they have not succeeded at a single point. While it seems to be clear that these cannot be obtained in the poorer parts of London, Glasgow, Liverpool, Manchester, and other great cities, it appears to be equally certain that the local authorities, even if they would, cannot put the Act into operation without them. The Board have, therefore, determined (after consulting their Parliamentary leaders) to put to their members the issue—shall effort be continued to enforce the Act, secure a more satisfactory measure, or be confined for the moment to their untiring daily district work by which, since 1842, a weekly half-holiday or some improvement has been built up everywhere?

Yours obediently,

J. A. STACEY, Secretary.

Early-closing Association,  
21 New Bridge Street, E.C., January 20.

This letter has been communicated to us. With a slight modification it appeared in "The Times" of January 21, and the following reply by Lord Avebury was printed in our contemporary's issue of January 24,—

SIR,—As I have the honour of being President of the Early Closing Association, it might naturally be supposed that I had seen the letter from our Secretary, Mr. Stacey, in "The Times" of to-day; and I write, therefore, to say that I have read it with surprise, and do not concur in the desponding view he takes.

London shopkeepers have always supported the Early Closing Bill, and the meetings which have taken place, especially the important and enthusiastic conference presided over on Thursday by the Bishop of London, show that the Act has their warm support, even if in certain districts they are not as yet prepared to adopt the exact hour suggested by the Early Closing Association.

Mr. Stacey is no doubt right in regretting that the Act is more complex than that which we had proposed; and the substitution of the numerous borough councils for the

London County Council creates a considerable difficulty, especially as in so many cases the two sides of a street are under different authorities.

At the same time the borough councils as sensible men will act together, and I cannot for a moment doubt that they will carry out the general and reasonable desire of the shopkeeping community for earlier hours of closing. They are, indeed, already acting both with prudence and promptitude.

The borough councils south of the Thames have had a conference, and have appointed a joint committee to consult the shopkeepers as to the most suitable hours. At Thursday's conference the mayors of three of the northern borough councils and several representative councillors from other districts were present, and expressed their hearty concurrence.

So far as other parts of the country are concerned, I am in communication with the leading tradesmen's associations in the northern cities mentioned by Mr. Stacey, and their letters certainly do not bear out his apprehensions.

The Act enables the majority of the tradesmen, with the consent of the local authority, to settle the hours of closing; and this is what the Early Closing Association has so long contended for.

Though passed in August, the Act only came into operation on January 1; this is the 21st, and already much has been done.

Surely, then, it is not necessary to be despondent. This is not a world in which it is wise to be easily discouraged.

I am your obedient servant,

High Elms, Down, Kent, January 21. AVEBURY.

Mr. Stacey has replied to this letter, saying that Lord Avebury's letter ignores important considerations. Mr. Stacey makes the remarkable statement that the Act became law in August; at all events, that was presumed by his Association's Board, who have given the Act a thorough trial, and now stand between two fires—that of the critics, who think the Act would ruin small shopkeepers, and that of those who say none but hard-and-fast compulsory closing at a fixed hour will cure late closing.

#### Lady Assistants.

SIR,—Verily "Bismuth" is a "lady-killer" and no mistake! "My lady" showed her teeth," *ergo* all the race must perish! Surely, Mr. Editor, you will come to the rescue, and hear at least another witness. Presumably the question embraces unqualified as well as qualified, so as to make comparisons balance. One would gather from "Bismuth's" letter that his experience was of a singular nature. He makes one experiment, fails to get the result he anticipated, and forthwith decides against the process. Such a judgment is not sound, either in theory or in practice. The "teeth" reaction may easily have been misinterpreted, and the "plain speaking" may as easily have been the wrong reagent. Dear "Bismuth," pray, for the sake of gallantry, withdraw your last sentence, even though you should for ever stand in dread of the pearly row behind a pair of rosy lips. Perhaps it is because I love the girls—all of 'em—(and that can never be a sin) that my experience does not agree with "Bismuth's," and I therefore feel in honour bound to state so. I have personal acquaintance with a dozen lady assistants, half of whom are qualified and four of whom I have employed, and all of them for smartness, neatness, affability, obedience, and general fitness for their duty, I am prepared to back against the best dozen "gentlemen" in Britain. And particularly does this apply to their meeting the requirements of lady customers. In a branch department, I have for twenty years controlled a "mixed band," and there likewise I can speak with equal confidence on behalf of the ladies. I would therefore entreat my brethren of the pestle not to accept the "gospel according to 'Bismuth'" on this subject. DARBY. (109/25.)

#### Letters in Brief.

LIQ. PLUMBI SUBACETATIS.—Writing in reference to Mr. G. F. Merson's paper on this subject, Mr. T. S. Barrie, F.C.S., Glasgow, says the alkalinity is a point of importance which Mr. Merson did not mention. Mr. Barrie has already suggested that a standard for alkalinity should be fixed; for what is the good of making a subacetate when by a little juggling with the quantities a solution might be made containing little subacetate but the full amount of lead reckoned as sulphate?

SALICYLATE OF BISMUTH.—Mr. George Roe, writing in our issue of December 6, 1904, said he had been unable to obtain a satisfactory bismuth salicylate made in England. He now writes to us to say that since then he has obtained a



light and white salicylate from Messrs. May & Baker which is not only excellent for dispensing purposes but strictly answers the British Pharmacopoeia tests. Mr. Roe points out that some of the salicylates on the market discharge the colour of mixtures containing tr. card. co. (probably on account of nitrous contamination), but Messrs. May & Baker's salicylate does not.

### Legal Queries.

Before submitting queries in this department, subscribers are advised to consult the "C. & D. Diary," 1905, on General and Trade laws, p. 287; Pharmacy and Poison laws, p. 299, and Medicine-stamp Acts, p. 279. In respect to the last we can mark labels "Liable" or "Not liable" if they are sent in duplicate and with a stamped and addressed envelope for return of the marked ones.

Full particulars in regard to trade-mark registration will be found in the "Diary," p. 240.

*Ovum* (106/52).—METHYL ORANGE IN CAKES.—The quantity of this used for colouring is, we should think, too small to be injurious to health, and unless it is that no proceedings regarding its use can be taken under the Sale of Food and Drugs Acts. Methyl orange is not a very toxic substance. The balance of opinion before the Commission on the use of preservatives and colouring matters in food was that coal-tar colours are used in such small quantities for colouring confectionery and cakes that no risk to health is involved.

*Physic* (106/31).—REPAIRING LEASE.—We cannot give you a definite opinion unless you send us the lease.

*Pax* (106/6).—CATHARTIC AND LIVER PILLS.—This title itself renders a medicine liable to duty. See list in *C. & D. Diary*, p. 284. See also paragraph 23, iv., on p. 281.

*Pioneer* (116/20).—COMPOSITION ESSENCE may be advertised in the manner you describe. As long as it is not held out or recommended for the prevention, cure, or relief of human ailments it is not liable to stamp-duty.

*Inquirer* (103/15).—CASHING CHEQUES.—If you have cashed a cheque for a casual customer which is returned to you by the bankers, the next step, after warning the man that the cheque was not honoured (he knowing when he gave you it that he had no funds), is to put the matter into the hands of the police with a view to prosecution; or, civilly, you may sue him in a county court if the sum is one that can be made the subject of a small-debt action.

*Old Subscriber* (102/42).—TENANCY AND LANDLORD'S DEATH. Your three-year agreement from December 25, 1902, with a landlord who has since died and whose property may be sold, will not be affected by such sale. The purchaser takes over the property on the tenancy conditions attaching to it, and you must be prepared to quit on December 25.

*Executor* (104/14).—TRUST ESTATE.—There is nothing to prevent you advancing money to your co-executors in order to pay debts due at the death of the testator, subject to repayment when the estate becomes available for division after the death of the person with the life interest, but we should require to see the will before advising you fully as to the payment of the legacies. From what you say it appears that while you may lend the estate money, if it is not made a mortgage upon the property the executors are entitled to repudiate liability.

*J. F.* (102/63).—POSSESSIVE CASE WITH HAIR-PREPARATIONS. If a preparation for the hair is not recommended for the cure of any ailment, it is not regarded by the Somerset House authorities as being a medicine; consequently they have no right to interfere with the use of the possessive case in, for example, the label

"| Smith's Superfine 'Hairstuff' | For removing Dandruff and improving | the growth of the hair. | A little to be rubbed in occasionally. | Smith, London."

Dandruff is not an ailment in the sense of the Acts, and accordingly the label is not liable to medicine stamp-duty.

*G. C. J.* (110/53).—BILE BEANS.—It would be in the highest degree injudicious to supply a customer who asks for "Bile Beans" with "any 4-grain black gelatin-coated pills." It is a matter of common knowledge that a proprietary article called "Bile Beans" is extensively advertised, and we are not aware that the two words were used together until Mr. Charles Forde used them, so he has some right to them; and as it is at present the subject of a lawsuit in the High Court of Justice, you should wait its decision before you act on your own opinion. The fair way to deal with a customer who is not quite precise is to ask what is really wanted.

*S. V. M.* (110/23).—RETAILING METHYLATED SPIRIT.—The Inland Revenue Office is wrong in saying that you cannot

supply a customer with a gallon of methylated spirit every day. The regulations say that not more than one gallon may be supplied by a retailer to one person at one time, and the time is not even limited to a day. You may also get a methylator to supply your customer direct with 10-gal. quantities under the usual conditions of supply.

### Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

*In a Fix* (100/18).—*III. QUARTIS HORIS* means "a dessert-spoonful every four hours" when you dispense to a well-to-do person who is likely to have a dessertspoon, and "two teaspoonfuls," etc., to those who are not. One measuring is what the dispenser should aim at in rendering such directions, consistent with the resources of the patient. We knew a dispenser who preferred saying "half a tablespoonful" rather than tell a poor person to take "two teaspoonfuls."

*J. R. P.* (94/40).—YELLOW FROG IN COWS.—This Welsh description (*Llyfant Melyn*) and your details of the disorder lead us to the conclusion that the trouble is actinomycosis, or "wooden tongue," a fungoid disease which in cattle is usually localised on the tongue, jaw, and facial bones. The most approved treatment consists of excision or scraping of the diseased parts, dressing with tincture of iodine, and subsequent applications of an astringent lotion, sulphate of copper preferably. See note on the subject in reply to "Aurelius," *C. & D.*, December 31, 1904, p. 106.

*Beginner* (101/27).—ADVERTISING EXPERIENCE.—Fowler's "Publicity" is one of the best books on advertising. The agent in this country is Mr. F. W. Sears, Ludgate Hill. The papers that are most valuable for advertising purposes have not two rates, one for such as you, and another for agents, but the prices are uniform, and not varied except for series orders. The cheap rates to which you refer are probably the result of a farming arrangement by the agent—a method condemned by experienced advertisers, who regard farmed spaces as being frequently of no value.

*Doubtful* (104/67).—THE BRONCHITIS-SPECIFIC in the form of a granular effervescent powder does not yield anything of a definite nature when submitted to analysis. Perhaps if we had a few particulars of its origin and use we might be put on the track.

*Nux* (79/27).—We should supply ung. belladonnæ in the case you mention. Ext. belladonnæ is the active ingredient of your sample ointment, but the basis is apparently cocoa-butter. Perhaps the medical man used up a few belladonna suppositories.

*Laurence* (98/38).—(1) CEMENT.—The properties you require for your cement are vaguely expressed and somewhat unreasonable. (2) Calomel and mucilage of acacia form a very hard cement when mixed together.

*Americus* (95/20).—PART-TIME ASSISTANT'S SALARY.—We should put the proportion of salary for the times mentioned for an indoor assistant at 10s. to 12s. 6d. a week.

*M. W. W.* (102/21).—RHEUMATISM-MIXTURE.—A cursory examination of your sample is sufficient to show that sodium salicylate is the active principle. The colour is due to tr. cardam. co.

*Aqua Bulliens* (105/32).—PASTE TO PREVENT WINDOWS STEAMING.—This appears to be soft soap coloured with finely powdered red ochre. The colouring-matter is used to disguise the soap, but is not a desirable addition.

*Cream* (100/27).—LAVENDER CREAM.—The following formula meets your requirements:

Pulv. tragacanth.	...	...	...	5ij.
Ol. lavand. ang.	...	...	...	℥xv.
Spt. rectificat.	...	...	...	℥ss.
Glycerini	...	...	...	℥iij.
Aquæ	...	...	...	℥vj.

Dissolve the lavender oil in the spirit and mix with the tragacanth in a mortar. Then add, all at once, the glycerin and water, previously mixed, stir till uniform, and pour into bottles.

*H. and B.* (98/53).—BRONCHITIS AND ASTHMA MIXTURE.—A mixture containing liq. ammon. acet., spt. ætheris nit., liq. morphine, and syr. simpl. would resemble your sample.

*Pinus* (81/2).—THE CAPSULE-PILL contains ext. hyoscyami and euonymin, and should be readily matched from some of the recipes in "Pharmaceutical Formulas."

*Gipsy* (82/23).—RAT-POISON.—This is an arsenical flour, and we can hardly believe the assertion that pigs eating the poisoned rats escape injury.

*Pax* (106/6).—SCHMIDT'S TREATMENT OF MILK-FEVER.—The solution of potassium iodide which Schmidt of Kolding



prescribed for milk-fever in cows was half an ounce of the salt in a quart of warm water. A fourth of this solution is injected into each udder.

*Apply Within* (Manchester) (121/5).—We thank you for your note. We are always pleased to receive from subscribers authentic items of local information which may be of general interest.

*Rus* (109/11).—LITMUS SOLUTION.—The B.P., 1885, is good enough for practical purposes at the counter. You can, of course, boil off the spirit. Catching it by condensation is mere economy.

*Vomen* (110/24).—MISTURA QUININE (10 grains to the ounce):

Quininae sulphatis ...	...	...	℥viij.
Acid. sulphuric. dil. ...	...	...	ʒiij.
Aquam ad ...	...	...	℥xxx.

M.S.A.

Colour if required with inf. gent. conc.

**OIL-AND-WINE MIXTURE.**—You might try the following proportions for this:

Ol. morrhuae ...	...	...	℥xx.
Saponini ...	...	...	gr. x.
Liq. pro syr. phos. co. ...	...	...	℥v.
Aquam ad ...	...	...	℥xl.

Dissolve the saponin in 5 oz. of distilled water and add to the oil, agitate thoroughly and add another 5 oz. of water, again shake, then add the liquor mixed with the rest of the water (in three portions, each being well blended before adding the others). Finally mix in

Ext. byni liq. ... ʒxl.

Agitating well.

The foregoing is a suggestion which you will be able in practice to adapt to your requirements.

*J. L. W.* (108/15).—The only information we have about the asthma-remedy to which you refer is that it has been reported to owe its virtues to an iodide.

*W. G. I.* (115/67).—AN IMPROVER who has been three years at the business should be worth at least 20% a year indoors; from that to 30% is generally paid.

### Information Wanted.

Postcard replies to any of subjoined inquiries will be esteemed.

98/47. Who are the makers of the corn-files retailing at 6d.?

100/14. Makers on the Continent (France excepted) of tortoiseshell combs, etc.

88/3. Makers of an instrument (watch-shaped) used to indicate damp in bedding, clothes, etc.

102/67. Makers of Larvicide?

115/11. Name and address of the makers of "Police Bottles."

102/61. Who makes Gibson's cornplasters?

97/45. Makers of glass scale-pans.

104/43. Who are the makers of the patent barb stopper for sauce and other bottles?

108/52. Address of the Lofoden Cod-liver Oil Co., formerly of 38 Charrington Street, N.W.

116/71. London address of agents for "Lettuce Cream" and "Phyloderma," being American preparations for chapped hands.

### Coming Events.

Notices for insertion under this heading should be received by Editor on Wednesday of each week.

Saturday, January 28.

*Inter-pharmacy Football League Matches.* London v. Metropolitan College; Westminster v. Muter's College.

Wednesday, February 1.

*Exeter Association of Chemists and Druggists*, Guildhall Restaurant, High Street, at 8 p.m. Annual supper. Tickets, 4s. each (exclusive of wine), can be had from the Hon. Secretary, Mr. H. Wippell Gadd, 100 Fore Street.

*Newcastle-on-Tyne Chemists' Association.* Annual dinner. *Pharmaceutical Society of Great Britain*, 16 Bloomsbury Square, W.C., at 11 a.m. Council-meeting.

*Pharmaceutical Society of Ireland*, 67 Lower Mount Street, Dublin, at 3 p.m. Council-meeting.

*Bristol Pharmaceutical Association*, Royal Hotel, College Green, at 8.30 p.m. Annual meeting, at which the officers for 1905 will be elected.

Thursday, February 2.

*Great Yarmouth Pharmaceutical Association.* Ordinary meeting.

*Leeds Chemists' Association*, at 8.45 p.m. Dr. Woodcock on "Why People Die."

*Chemists' Assistants' Association*, 73 Newman Street, Oxford Street, W., at 9 p.m. Mr. W. L. Howie will give a lantern-lecture, "A Holiday in Bavaria."

*Cambridge Pharmaceutical Association*, University Arms Hotel, at 8.30 p.m. Annual dinner, at which Dr. Donald Macalister and Mr. R. A. Robinson will be present. Tickets, 5s. each, may be had from Mr. B. S. Campkin, 74 Mill Road.

*Röntgen Society*, 20 Hanover Square, W., at 8.15 p.m. Dr. C. A. Wright will read a paper entitled "Some Points in the Construction of a High-frequency Machine," and Messrs. Newton & Son will show Dr. Thurstan Holland's x-ray diaphragm compressor.

*Chemical Society*, Burlington House, W., at 8 p.m. Ordinary meeting. "Studies in the Camphane Series. Part XVI.: Camphorylcarbamide and Isomeric Camphorylcarbamides," by Dr. M. O. Forster and Mr. H. E. Fierz.

Friday, February 3.

*Royal Institution of Great Britain*, Albemarle Street, Piccadilly, W., at 9 p.m. Professor T. Clifford Allbutt on "Blood-pressure in Man."

Saturday, February 4.

*Inter-pharmacy Football League Match.* Metropolitan College v. Square, at Wormholt Farm.

*Irish Chemists' Assistants' and Apprentices' Association*, Larchet's Hotel, Dame Street, Dublin, at 7.30 p.m. Annual dinner. Tickets, 2s. 6d. each, can be had from the Hon. Secretary or any member of the Association.

THE Junior Pharmacy Ball is to be held on March 1. Mr. Percival Trick, Salisbury House, London Wall, E.C., is the Hon. Secretary.

THE ANNUAL FESTIVAL DINNER of the Commercial Travellers' Benevolent Institution is to take place at the Prince's Restaurant, Piccadilly, W., on February 10.

THE ANNUAL DINNER of the North Kent Chemists' Association is to be held at the Clarendon Royal Hotel, Gravesend, on April 5. The President of the Pharmaceutical Society is to be present.

THE SHEFFIELD CHEMISTS' BALL is to be held at the Royal Victoria Hotel on February 9. Tickets, 7s. 6d. each (including supper), may be had from Mr. H. G. Williams, Hon. Secretary, 118 The Moor, or from any of the stewards.

THE CHEMISTS' ASSISTANTS' ASSOCIATION has arranged for the next "Cinderella" dance to take place at the Portman Rooms on February 8. Tickets, 2s. 6d. each, may be had from Mr. A. Latreille, 48 Baker Street, W., and Mr. A. R. Arrowsmith, 4 Stratford Place, Oxford Street, W.

THE ANNUAL DINNER and smoking-concert of the West Ham Chemists' Association will be held at the London Tavern, Fenchurch Street, E.C., on February 9. Mr. Ernest Gray, M.P., and Mr. Walter Hill have promised to be present. Tickets, 4s. 6d. each, may be had from Mr. F. W. Gwinn, 143 Cann Hall Road, Leytonstone, N.E.

THE ANNUAL MEETING AND DINNER of the Peterborough Chemists' Association is to be held at the Grand Hotel, Peterborough, on February 9. Mr. R. A. Robinson (President of the Pharmaceutical Society, Mr. A. S. Campkin, Mr. W. S. Glyn-Jones, Mr. F. A. Rogers (Western Chemists' Association), and Mr. R. Bremridge are to be present. Tickets, 4s. each, may be had from the Hon. Secretary.

THE ANNUAL DINNER of the past and present students of the School of Pharmacy of the Pharmaceutical Society will take place on February 23, at 7.30 p.m., in the Balmoral Room at the Trocadero. Dr. Arthur Pearson Luff, B.Sc., F.R.C.P., M.R.C.S., will be in the chair. Tickets (price 6s.) can be had on application to Mr. S. V. Roberts and Mr. C. S. White, Hon. Secretaries of the Dinner Committee.

HOW TO FIND TAPEWORMS.—A certain specialist in a nearby State built up a large business on his wonderful success in removing tapeworms. Nearly every patient treated yields up a worm from 20 to 25 feet long, to the great mental relief of the patient and financial relief of the specialist. His method is simplicity itself. It is based on the old principle of planting what you want to find, and then with much spectacular effect finding it. The patient is given a large capsule and admonished to return the next day for further treatment. Upon doing so he receives a liberal dose of a brisk cathartic and soon passes a voluminous amount of silk tape which has been jointed to simulate a tapeworm, and which the patient has swallowed in the rather large capsule given him the previous day!—*Bulletin of Pharmacy.*



## Trade Report.

**NOTICE TO BUYERS.**—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., January 25.

**T**HE drug and chemical markets are almost featureless this week, and price-alterations up to the time of writing are but few. Castor oil has advanced considerably and higher prices are now asked for insect flowers and chamomiles. Opium is tending dearer. Quinine, on the other hand, is flat. Refined camphor is very firm but quiet. There has been an excellent demand lately for spot shellac, the trade replenishing their stocks. The deliveries of drugs from the warehouses have also been very fair, and immediately after the auctions last week many parcels changed hands. At the spice auctions arrowroot and pepper were steady. Ginger was quiet and practically all bought in. As this report closed on Wednesday evening any important alterations taking place to-morrow will be found in our coloured supplement. The subjoined table shows the principal alterations of the week:

Higher	Firmer	Easier
Ammonia sulphate Golden seal Oil, castor	Chamomiles Insect-flowers Lead salts Opium Sarsaparilla (grey Jam.)	Menthol Oil, cottonseed Quinine (sec. hands)

### Cablegrams.

**HAMBURG, January 25:**—Carnauba wax is firmer, Japanese vegetable wax is lower at 94m. per 100 kilos., and menthol is flat at 16½m. per kilo.

**SMYRNA, January 25:**—A fair business continues to be done in opium. There are buyers at from 7s. 8d. to 8s. per lb., and but few sellers. A substantial advance is shortly expected.

**NEW YORK, January 25:**—Business here is quiet. Opium shows a firmer tendency at \$2.75 per lb. in case lots of druggists' quality. Peppermint oil continues weak at \$3.25 per lb., as is also menthol at \$2.40 per lb. Ergot is easy at 37c. per lb., and for citronella oil 30c. per lb. is quoted. Senega is easy at 62c. per lb., and refined camphor is very firm at 78c. per lb. in barrels. Cod-liver oil is weak at \$44 per barrel.

### Arrivals.

The following drugs, chemicals, etc., have arrived at the principal ports of the United Kingdom from January 12 to 18 inclusive: Acid, acetic, 160 cbs. 18 brls. 37 cks.; acid, boric, (@ Leghorn) 23, (@ Havre) 30; acid, citric (@ Bordeaux), 12; argol (@ Naples), 76; arrowroot (@ St. Vincent), 627 brls. 388 cs.; arsenic (@ Oporto), 219; bismuth (@ Sydney), 11 cs.; bismuth ore (@ Sydney), 74 bgs.; bleaching-powder (@ Hamburg), 166; borax (@ Havre), 189; camphor, 120 cs., (@ Havre) 375 cs.; canary-seed (@ Constantinople), 273; ohamomiles, (@ Ghent), 24; chillies (@ Kobe), 163; cinchona, (@ Calicut) 32, (@ Tuticorin) 22, (@ Paita) 8; ctrate of lime (@ Messina), 20; cloves (@ Hamburg), 148; cochineal (@ Las Palmas), 34; cocculus indicus (@ Calicut), 134; coriander-seed (@ Bombay), 100; cream of tartar (@ Marseilles), 23; fenugreek (@ Casablanca), 100; gentian (@ Marseilles), 15; gum arabic (@ Suez), 715 pkgs.; gum, unenumerated (@ Bombay), 560 bgs. 68 chts. 83 cs.; honey (@ Eten), 98 kegs; lime-juice, (@ Dominica) 36 hds. 102 puns., (@ Antigua) 5 cks., (@ Palermo) 75; lycopodium, 8; menthol, (@ Havre) 85 cs., (@ Yokohama) 20 cs. *in tr.*; musk-seed (@ St. Lucia), 1; nux vomica (@ Coconada), 300 bgs.; oil, castor (@ Coco-

nada), 88 cks.; oil, eucalyptus (@ Hamburg), 10 cs.; oil, lemongrass, (@ Calicut) 15, (@ Cochin) 50; oil, peppermint, (@ Havre) 60 cs., (@ Yokohama) 30 cs. *in tr.*; oil, wood (@ Shanghai), 31; oils, essential, (@ Palermo) 20, (@ Messina) 17; olibanum, 100; opium, (@ Constantinople) 100, (@ Marseilles) 10; papain (@ Colombo), 4 cs.; roots (@ Marseilles), 371; saffron (@ Valencia), 8; sandarac (@ Morocco), 46; senna (@ Tuticorin), 339; tartar, (@ Barcelona) 47, (@ Messina) 32, (@ Bordeaux) 60; tonka beans (@ Para), 14 cs.; turmeric, 100; vanilla (@ Marseilles), 110 cs.; wax, bees', (@ East Indies) 44 cs., (@ Jamaica) 17, (@ Barcelona) 14; wax, carnauba, 14; wine-lees (@ Valencia), 314.

The following drugs and chemicals have arrived from January 19 to 25, inclusive: Acid, acetic (@ Hamburg), 84; acid, sulphuric (@ Antwerp), 49; acid, tartaric (@ Bari), 61; antimony, crude (@ Hamburg), 150; argol (@ Cape Town), 83 bxs.; arsenic (@ Barcelona), 70; benzoin (@ Singapore), 18; bird-lime (@ Kobe), 200 cs.; bismuth (@ Sydney), 19 cs.; bleaching-powder (@ Hamburg), 196; capsicums, 424; camphor (@ Hong Kong), 52; cardamoms, 104; cloves (@ Hamburg), 900; colocynth (@ Almeria), 7 brls.; cream of tartar (@ Marseilles), 26; fenugreek, 284; galls (@ France), 30; gentian, 8; hellebore (@ Marseilles), 59; jaborandi (@ Maranham), 19; menthol, (@ Marseilles) 50 cs., (@ Hamburg) 47; oil, castor, (@ Genoa) 20, (@ Marseilles) 38, (@ Calcutta) 47; oil, cod-liver, (@ St. John's, Newfoundland) 42 brls., (@ Aalesund) 23; oil, eucalyptus (@ Melbourne), 196 cs.; oil, peppermint (@ Hamburg), 45 cs.; scammony root, 21; shellac (@ Calcutta), 245; button, 25; vanilla (@ Marseilles), 4 cs.; wax, carnauba (@ Parnahyba), 49; wax, Japanese (@ Kobe), 12; wine-lees (@ Barcelona), 602.

### Heavy Chemicals.

The present demand in the heavy-chemical market is fully an average one for the time of the year. Export trade is, of course, on the quiet side, but the home demand is very fair, and deliveries required against existing contracts are on the whole satisfactory. The general tone of the market is therefore very steady, and values are well maintained all round.

**ALKALI-PRODUCE.**—Demand in this department is fairly active, and bleaching-powder and caustic soda are in increased request. More business is being done in the latter product, especially on forward account. Ammonia alkali and soda crystals continue to move fairly well, and chlorates and prussiates keep steady. Saltcake is in better request again, and price tends upwards.

**SULPHATE OF AMMONIA**, with heavier inquiries, has improved appreciably, and nearest values are now as under: Beckton, 13½. 5s. to 13½. 10s., Beckton terms 13½. 2s. 6d., London 13½. 7s. 6d., Leith 13½. 2s. 6d. to 13½. 5s., and Hull 13½. to 13½. 2s. 6d.

**BICHROMATES OF POTASH AND SODA** are moving steadily at unaltered rates. Bichromate of potash, English and Scotch deliveries, 3d. per lb. less 2½ per cent. Glasgow, and export 2½d. per lb. net, f.o.b. Glasgow. Bichromate of soda, English and Scotch deliveries, 2½d. per lb. less 2½ per cent. Glasgow, and export 2d. per lb. net, f.o.b. Glasgow.

**LEAD COMPOUNDS** are firmer since last quoted. White acetate of lead 25½. 5s., brown acetate 17½. 10s., nitrate 24½. per ton—all less 2½ per cent. Glasgow.

**MAGNESIUM SALTS** are in steady request at late figures. Sulphate (Epsoms) 57s. 6d. to 62s. 6d. per ton, chloride 65s. to 67s. 6d. per ton, and carbonate 37s. 6d. to 40s. per cwt.

**CALCIUM CHLORIDE** is only quiet at about 50s. to 55s. per ton, f.o.b. or f.o.r.

**ZINC SALTS** maintain a steady tone, and are moving well. Zinc-sulphate crystals 6½. to 6½. 5s. per ton; zinc-chloride solution 100° Tw. 6½. 5s. to 6½. 10s. per ton.

### German Drug-market.

Hamburg, January 23.

Our drug-market shows but few changes since last week.

**AGAR-AGAR** is quiet at 265m. per 100 kilos.

**ANTIMONY** is quiet at 30½m. per 100 kilos.

**CAMPHOR.**—Refined is firm in first-hand at 700m., and second-hands 695m. per 100 kilos.

**CARNAUBA WAX** continues very firm, holders asking 265m. per 100 kilos. for grey, up to 320m. per 100 kilos. for fine yellow.

**CONDURANGO-BARK** is dull at 57m. per 100 kilos.

**CITRIC ACID** is tending firmer at 222m. per 100 kilos.

**ERGOT** is unchanged at 305m. to 310m. per 100 kilos.

**JAPANESE WAX** is quiet at 99m. per 100 kilos. on the spot.

**LYCOPIDIUM** is strong at 760m. to 765m. per 100 kilos.

**KOLA** is firm at 75m. to 80m. per 100 kilos.

**MENTHOL** is flat and very freely offered on the spot at 17m. per kilo.

**QUILLARIA** is firmer at 36m. per 100 kilos.

**SENEGA** is dull and declining at 585m. per 100 kilos. and forward 575m.

**TURPENTINE** steady at 76½m. per 100 kilos.



WORMSEED is firm at 127½m. to 130m. per 100 kilos.  
 CASTOR OIL shows a strong advance; first-pressing in barrels is now worth 49½m. to 50m. per 100 kilos.  
 COD-LIVER OIL is quiet and nominal at 160m. per barrel for non-congealing oil.  
 JAPANESE FISH-OIL is dull of sale.  
 CHINESE WOOD OIL in barrels is steady at 51m. per 100 kilos.  
 TURPENTINE is steady at 76½m. per 100 kilos.  
 PEPPERMINT OIL (H.G.H.) is quiet at 16½m. per lb., and Japanese is flat at 11m. to 10½m. per kilo.  
 STAR-ANISEED OIL is quiet at 11½m. per kilo.  
 CASSIA OIL is quoted 7m. per kilo.

ACID, CITRIC.—English is quoted 1s. 0½d. to 1s. 0¾d., and foreign 1s. 0¼d. per lb.

ACID, TARTARIC.—English is 11¼d. to 11½d., and 10¾d. to 10½d. for foreign.

ALOES.—Several sales of Socotrine have been made at 80s. per cwt. for good hard bright.

AMERICAN DRUGS.—The following are a few c.i.f. quotations of leading roots, barks, oils, etc.: Balsam—Canada, 1s. 10¾d. per lb. in barrels and 1s. 11¾d. in cases; Tolu, 11d. to 11½d. per lb., according to package. Cascara sagrada 31s. 6d., euonymus atro. 1s. 0¾d., hamamelis-bark 22s., prunus virg. 41s. 6d., sassafras-root 60s. to 74s., simaruba 1s. 3¾d., viburn. prunifol. 10½d., lobelia herb 55s. per cwt., kava-kava 50s. 6d., leptandra 46s., pareira brava 41s. 6d. per cwt.

ARGOL.—At auction 112 bags of Cape were bought in, including fair to good grey at 50s. to 57s. 6d. per cwt., pinky at 42s. 6d. to 45s., and brownish at 35s. per cwt.

ARROWROOT.—At auction St. Vincent sold at 1¾d. per lb. for good manufacturing.

BENZOIN.—Since the auctions a fair business has been done in Sumatra gum at 6l. 10s. per cwt.

CAMPHOR.—Refined is very firm but quiet, with small sales of Japanese tablets reported at 3s. per lb. Private letter advices from Japan continue very strong, and there are no offers of crude from that quarter, although it is thought that holders in the present circumstances would have been willing to realise their stocks.

CANNABIS INDICA.—An arrival of 10 cases, part tops and part small, has taken place.

CANTHARIDES.—Chinese are quoted 2s. per lb. c.i.f., and on the spot 2s. 2d. is wanted for old flies. Russian are worth about 5s. to 5s. 3d. c.i.f.

CASCARA SAGRADA.—Business has been done in a small way at 33s. 6d. per cwt. on the spot for two-year-old bark.

CHAMOMILES.—Belgian are firmer, and old stocks are now in small compass, a few lots offering at about 60s. per cwt. New No. 1 are quoted 80s. to 90s.

CHILLIES in auction sold at 37s. for fine Nyassaland, and 20 bags Japanese realised 33s. 6d. to 34s. for good red, without reserve.

CLOVES.—The delivery market on Monday opened firmer, with sales of about 500 bales Zanzibar, including January-March at 4½d., March-May at 4½d., April-June 4½d.; and on Tuesday the market was again firmer, about 800 bales selling, comprising January-March and March-May at 4½d. to 4½d., and April-June 4½d. On the spot some 500 bales have changed hands at 4½d. per lb. for cash. To-day a larger business has been done at 4½d. for January-March, 4½d. to 4½d. for March-May, and buyers April-June 4½d. per lb.

COCOA-BUTTER.—The auction to be held at Amsterdam on February 7 will consist of 80 tons van Houten's, 20 tons de Jong, and 8 tons Mignon.

ERGOT.—Quiet. Fair Russian ergot is offered at 1s. 6d. to 1s. 6½d. per lb. c.i.f., and on the spot bold Spanish is held for 1s. 10d. and dull Russian at 1s. 7d. per lb.

GAMBOGE.—An arrival of 15 cases has taken place; they come to a bare market.

GINGER.—At auction unsorted native Cochin cut was bought in at 37s. 6d., and about a thousand bags were also bought in at 20s. for washed rough, 22s. for Calicut rough, and 25s. for bold.

GOLDEN SEAL.—The advance in the United States to 6s. 10d. c.i.f., has compelled holders on the spot to ask

1d. per lb. more—viz., 6s. 10d. net, at which sales have been made.

INSECT FLOWERS are advancing in Trieste, and prices are about 5s. per cwt. dearer on the week.

LYCOPODIUM.—Sales are being made at 3s. 8d. per lb. on the spot for genuine double-sifted Russian.

MENTHOL.—Some fairly large arrivals have taken place this week. Up to Wednesday there was no business to report, the spot price being nominal at from 8s. 3d. to 8s. 6d. for Kobayashi.

OIL, CASTOR.—Much dearer. Hull make of first pressing is now quoted 24l. 17s. 6d. per ton for first pressing and 22l. 7s. 6d. for second pressing, ex wharf, London. Belgian firsts on the spot is 24l. 15s. for firsts and 23l. 10s. for seconds.

OIL, COD-LIVER.—Our Bergen correspondent writes on January 21 that the reports from the cod-fisheries are more confident than they have been for several years, owing to the fact that the cod has appeared quite regularly in the usual places and at the usual time. A certain improvement in the quality and size of the cod is also to be noted, although it is far from satisfactory. The further development of the fishery will now depend mainly on the weather and the supplies of bait, which, however, still remain unsatisfactory. As soon as possible we shall submit positive numbers as to the weight and fatness of the cod. Meanwhile the oil market is very calm. The arrivals of new oil are insignificant, and last year's produce is neglected, the quotation of last year's non-congealing oil being 150s. per barrel, f.o.b., nominally. The exports from Bergen up to date amount to 118 barrels, against 56 barrels at the corresponding date of last year. In London, prices are more or less nominal at the moment, buyers waiting offers of new produce.

OILS, FIXED.—Cochin *Cocanut* oil is dull at 34s. for Cochin and 29s. 6d. to 30s. for Ceylon. *Cottonseed* oil is easier at 14s. to 16s. for refined and 13s. for crude on the spot. Refined *Rape* is dull of sale at 21s. 3d., ordinary brown being 20s. 3d. spot. *Linseed* is steady at from 14s. 7½d. to 14s. 9d. in barrels and 13s. 10½d. to 14s. in pipes. *Lagos Palm* is unchanged at 26s. 6d. *Turpentine* is 37s. 9d. per cwt. for American on the spot, and *Petroleum* is unaltered at 6½d. to 7d. per gal. for water-white American, ordinary 5½d., and Russian 4¾d. to 4¾d.

OPIMUM.—Smyrna, Friday, January 13: The sales for the week ending to-day amount to 57 cases, of which 26 were for England, 16 for U.S.A., 5 for the Continent, and the remainder for speculators. The weather continues cold, and hard frost having set in over all the opium districts the sowings are retarded. Taking the opinion of all experts on the article it is firmly believed that our crop of opium will be small this year, and if we expect to see anything over 5,000 cases the weather conditions must prove very favourable indeed from this to the end of the season. Many of our native dealers would like to speculate, but want of money at this season keeps them from doing so. In any case they do all they can not to be obliged to sell, and buyers therefore experience great difficulty in trying to fulfil their engagements. The arrivals in Smyrna to date amount to 4,136 cases, against 1,701 at same period last year.

PEPPER.—Quiet. Fair Singapore is quoted on the spot at 5½d. per lb., and January-March shipment at 5½d. per lb. Business to the Continent has been done at 5½d. to 5½d. c.i.f. January-February. Fair Singapore *White* pepper is quoted 8½d., and fair Penang at 7½d. per lb. Penang has been sold at 7½d. c.i.f. for near at hand. At auction fine bold white Singapore was bought in at 1s. 2d., fair Siam at 7½d., and fair Penang at 7½d. per lb.

QUININE.—A fair amount of business was done towards the close of last week from second-hands, including spot at 10½d. per oz., but no transactions have transpired this week, there being buyers at 10½d. Makers' price is still 1s.

The Amsterdam quinine works on January 23 reduced the price by 1fl. per kilo., so that the quotations are now 20½fl. for Ed. II. and 23½fl. for Ed. III.

SARSAPARILLA.—Grey Jamaica has been sold at 1s. 2d. per lb. since the auctions. Lima-Jamaica is quoted 10½d. per lb. c.i.f. Ten bales of red native Jamaica have arrived this week.



**SERPENTARY.**—Small sales have been made at 1s. 9d. per lb. net. According to New York advices the article is extremely scarce.

**SHELLAC.**—The outlook is now regarded as much more favourable so far as the adjustment of differences is concerned, owing to the fact that two influential Calcutta firms have purchased on cash terms the entire holdings belonging to a firm of brokers whose affairs are being wound up. It is said that the quantity involved is about ten thousand cases. This has put matters on a sounder basis, and as no further failures have been announced the tension and uncertainty in regard to the financial position of operators have been relieved. The prices at which the goods have been taken over has not transpired, but there is no doubt that the purchases have passed into strong hands, so that prices may improve. In view of the serious nature of the recent crisis it is quite expected that speculation will be at its lowest point for some time to come. The spot market has been steady, with a fair consumptive demand at prices showing a wide range in values; ordinary to fair second orange TN has been sold at 142s. 6d. to 150s., and good and fine marks orange up to 167s. 6d. Cakey to fair free A C Garnet is quoted 145s. to 150s. The deliveries so far this month have been exceptionally good, amounting to 6,500 cases, and to-day the spot business included middling to good TN at 145s. to 150s., fine A C Garnet at 150s., and blocky at 140s. to 142s. 6d. per cwt.

**SPERMACEI** is quoted 1s.  $\frac{1}{2}$ d. per lb., c.i.f., for American.

**STICKLAC.**—At auction ten bags of Rangoon offered and sold at 80s. for woody and blocky and 36s. for very woody.

**TRAGACANTH.**—At auction on Friday 264 packages were offered, of which a fair proportion sold at fully private prices. Firsts brought 12l. 10s. to 13l.; good seconds, 11l. 5s. to 12l.; fair to good thirds, 7l. 15s. to 9l. 10s.; fine fourths, 7l. 7s. 6d.; good fourths, 6l. 5s. to 6l. 10s.; brownish to fair fourths, 5l. 5s. to 6l.; yellowish fourths, 5l. to 5l. 12s. 6d.; hoggy fourths, 82s. 6d. to 92s. 6d.; low brown hoggy, 57s. to 57s. 6d.; low dark, 32s. 6d. to 50s. per cwt. 142 packages water-damaged sold without reserve for account of whom it may concern at prices ranging from 5l. 17s. 6d. to 7l. 7s. 6d., and 15s. to 92s. 6d. per cwt.

#### Olive Oil.

Writing in regard to eating and medicinal qualities of olive oil, Messrs. Brückner, Lampe & Co., in the course of their report, state that the general crops in Italy (Calabria and Lecce) have been very poor, and so far the producers of table-oils have only been able to offer small quantities, and quality is by no means prime. The imports from Spain and the South of France, especially from Nizza, also continue unfavourable. From the present position of the crops it appears as if top prices have not yet been reached.

#### Quinine and Cinchona.

Messrs. C. F. Boehringer & Söhne, of Waldhof, have issued their annual circular, giving the imports of cinchona into the United Kingdom, exports from Java, first-hand stocks in London and Amsterdam, the range of unit, and the average percentage of quinine in the manufacturers' bark offered at Amsterdam. Makers' prices of quinine from 1901 to 1904 are also given, together with the estimated contents of quinine in the bark sold at London and Amsterdam from 1898 to 1904, and the stock of quinine in London. The latter now stands at 3,336,000 oz.

#### Java Cinchona.

Mr. G. Briegleb, of Amsterdam, has again issued his useful diagram showing the unit paid at each Amsterdam cinchona-sale in the years 1891 to 1904. A table is also given showing the shipments (in kilos.) from Java to Europe from 1892 to 1904, and the average test of bark sold in auction is also given, together with the average unit paid at the ten auctions of each year. The most interesting of the fourteen years (1891 to 1904) appear to be 1899 and 1900—two years of memorable speculation. In January, 1899, 4.70c. was paid, but in March the unit touched 10.90c., from which point it fell continuously at each auction, until in September 5.30c. was recorded. This was the turning-point, for from that period onwards the unit rose without a break to 10.60c. in February, declining to 10c. in March; but the downward movement was of short duration, as the next five auctions brought the unit up to 12.20c. in September, 1900—an hitherto unheard-of price since 1891. The decline from this point, however, was almost as violent as the previous twelve months' advance had been, for the unit was back again at 7.25c. in January, 1901.

#### Newfoundland Cod-liver Oil.

Mr. W. A. Munn, of St. John's, writes us, under date of January 6, that the total exportation of cod-liver oil from Newfoundland from July 1, 1903, to July 1, 1904, was 191,403 gals., and from July 1, 1904, to December 1, 1904, 73,464 gals. The available stocks in Newfoundland are now nothing in comparison with what was held at this time last year. The above statistics have just been published by the Newfoundland Customs Department and give a good idea of the quantity of oil manufactured during 1904, as compared with the previous year. The Newfoundland Government keeps no available statistics from week to week as is done in Norway, and the only authentic information we can rely on is the total exportation. The past season has been a very disappointing one, and had it not been for a fairly good fishery on the Labrador coast the supply of codfish this year would be small indeed. The yield of oil from the livers on the Labrador coast is never to be depended on, and we have to look almost altogether to the Newfoundland shore codfish, which are the finest fish in the world. The livers always yield a good quantity of oil, and generally average 1 gal. of oil from 3 gals. of livers. This year, in some localities, the yield was even better. In an interview with a representative of the "Montreal Witness," Mr. A. H. Brittain, who represents the firm of Messrs. Black Bros. & Co., Ltd., Halifax, and La Have, Nova Scotia, stated that for the year just closed the catch of codfish has been very light, and the demand far exceeded the supply. This shortage, he said, is not only in Canadian waters, but, coming on top of the small Norwegian catch, has caused a steady advance in price. For 1902 to 1904 the average price per quintal has been gradually increasing from an average of \$3.60 in 1902 to an average of \$5.40 in 1904 for dry quintal cod. "The greatest difficulty we find," said Mr. Brittain, "at the present time is to secure enough fishermen to man our fleet, which yearly leaves the coast of Lunenburg and La Have, and the difficulty of securing sufficient herring bait."

#### An Old Style.



We are indebted to Mr. C. N. Coles, of Tottenham, for the original from which the above is reproduced. It is not an envelope, but a sheet of paper (9 inches by 7 inches), the water-mark being "J. Whatman, Turkey Mill, 1836." This is folded up to a length of 5 inches. J. Cross, 18 Holborn, was the engraver, and he worked well.

**A CHILDREN'S COUGH-MIXTURE.**—At an inquest held at Kensington by Mr. Drew on January 24, relative to the death of a three-year-old child, named Annie Fitzgibbons, the mother stated that as the child had a cold she poulticed it and sent to a chemist's for some cough-mixture. When the child did not get any better she sent for a doctor, but death occurred before his arrival. A *post-mortem* examination showed that death was due to acute pneumonia. The bottle from the chemist was produced and bore the label "Cough-mixture for Children, P.J. Formulary [then followed directions as to doses]. Watson's Drug-stores, Limited, 39 Bramley Road and 142 Walmer Road, Notting Hill, W." Gwilherma Watson, a young lady, was called, and, in reply to the Coroner, said she was a registered chemist of 39 Bramley Road. She sold the mixture produced. She did not think it was prescribing. The mixture contained ipecacuanha-wine, glycerin, syrup of squill, and dill-water. The Coroner: What happens, I suppose, is that you have a bottle of cough-mixture for children, and you give it in all cases, no matter what the symptoms are? Witness: It is made up from a "Pharmaceutical Journal" formula. Dr. Greene said the mixture was quite harmless, but was no earthly good. The Coroner said it was satisfactory that this indiscriminate prescribing had nothing to do with the death, but he knew of nothing more dangerous than giving to all children who had a cough one mixture. The jury returned a verdict of death from pneumonia.